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Re-examination of the application of cognitive developmental theory to the study of ethics and socialization in the accounting profession

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**RE-EXAMINATION OF
THE APPLICATION OF COGNITIVE DEVELOPMENTAL THEORY TO
THE STUDY OF ETHICS AND SOCIALIZATION
IN THE ACCOUNTING PROFESSION**

by

Stephen Bruce Scofield, M.P.A., C.P.A.

**A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Business Administration**

**COLLEGE OF ADMINISTRATION AND BUSINESS
LOUISIANA TECH UNIVERSITY**

August 21, 1997

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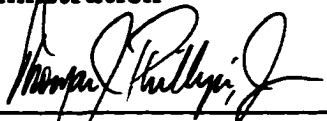
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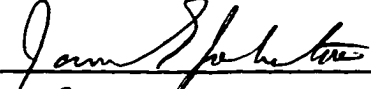

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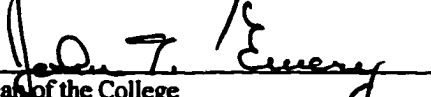
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ABSTRACT

Concern over the ethical behavior of accountants in public practice is legitimate. Willful misrepresentation of accounting information undermines the effective operation of economic institutions and social systems that rely on financial information. Such concern, fueled by salient instances of accounting failures, has prompted investigation by the federal government and research by both accounting institutions and researchers in academe.

One of the most critical claims coming out of these inquiries is that the accounting profession is controlled by a self-perpetuating culture that too readily identifies with the interests of clients, as opposed to the needs of financial information users. Anecdotal evidence of the existence of the culture has been developed in congressional hearings, and controlled empirical evidence of such has been developed in a number of research efforts.

The present study is directed at challenging the conclusion, derived in prior research, that people in decision-making positions in the accounting profession exhibit a diminished capacity for moral reasoning in cognitive developmental terms. Methodological errors in data collection in prior research are corrected. Results of the present study depart materially from results previously published. Evidence is provided that deficient moral reasoning capacity, in cognitive developmental terms, is not a positive criterion for retention and promotion in the profession.

Issues of reasoning “content,” as opposed to reasoning “capacity,” in cognitive developmental terms, are a major part of the study. Reasoning content in the form of political ideology is examined as a factor that complicates interpretation of Defining Issues Test scores.

Also analyzed are gender differences in Defining Issues Test P scores (females outperform males), differences in P scores for different geographic regions (the South under performs certain other regions), a comparison of DIT performance of partners as compared to sole proprietors (no difference is apparent), and a contrast of accountants and attorneys (differences are apparent).

Other possible directions for examining ethical issues facing the accounting profession are made more significant and interesting as a consequence of results reported. Suggestions for further research are provided.

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CHAPTER I

INTRODUCTION

There is considerable and growing interest in the question of what makes accountants behave ethically. Willful misrepresentation is potentially a more material factor to the value of a work product than the greatest refinements of economic theory and information technology. When accountants behave unethically, the faith of society in the profession is at stake. Consequently, at stake, is the effective operation of economic institutions and social systems that rely on accounting information.

Concern over the quality of the work of the accounting profession is centered in awareness of the expanding economic consequences of financial reporting. Two decades ago, salient business failures prompted congressional hearings (U.S. House "Moss," 1976; U.S. Senate "Metcalf," 1977) culminating in: (1) calls for closer participation by the Securities and Exchange Commission in the process of setting accounting standards, so as to control the content and resulting economic consequences of that information; and (2) calls for closer government oversight concerning auditor independence and the quality of accounting and auditing services of firms that audit publicly traded companies.

A call for charging the profession with materially increased responsibility for fraud detection and reporting was one product of the Dingell Committee. The recommendation

was an outcome of hearings concerning the very costly failures of Beverly Hills Savings and Loan Association, Home State Savings, Drysdale Government Securities, and E.S.M. Government Securities, among others (U.S. House, Subcommittee on Oversight and Investigations "Dingell Committee," 1985a, 1985b, 1985c, 1985d, 1985e, 1985f). A series of reports issued by the General Accounting Office focused on the role of the accounting profession in the catastrophic failure of the nation's financial institutions (U.S. General Accounting Office, 1989a, 1989b, 1989c, 1989d, 1990, 1991a, 1991b).

In 1996, the United States General Accounting Office issued a report on its assessment of progress of the profession in addressing the concerns expressed about the accounting profession over the previous two decades. The report outlines continuing concern over the nature of the standard setting process, the growing significance of nontraditional financial information, and the extent of auditor responsibility for the quality of internal control systems. Most critically, concern exists over the capacity of the profession to carry out its most basic charge when operating in a risk averse mode. Risk aversion, presumably, is magnified when an organization is operating in a litigious environment, and operating with a history of ethical culpability. Of course, concern also continues to exist over the profession's role in widely publicized failures of businesses, and in some instances, whole industries (U.S. General Accounting Office, 1996).

Rooted in the make up of the moral character of individuals that make up the accounting profession is the ability to draft standards that are fair to all parties affected by financial reports, the ability to cope in an even-handed way with the political forces exerted on the profession, the ability to respond objectively and effectively as society faces

the uncharted regions of information technology, and the ability to effect self regulation through peer review in an objective manner.

Importance of Studying Ethics and Socialization

There are three important reasons to study ethics and socialization in the accounting profession. First, economic costs of business failures and government bailouts. Second, nontraditional financial information, nontraditional means and methods of communication, and increasingly novel circumstances in a world of rapidly evolving technology are factors that make it increasingly necessary to rely, in professional practice, on sound judgment, as opposed to codified accounting principles. Third, given the power of information, it is particularly important that the profession limit, through its own responsiveness, the Security and Exchange Commissions's exercise of its authority. In Orwell's "1984," economic information is not only controlled by the government, it is created by the government. The ministries of "Truth and Plenty" produce any desired public response through the creation of fact (Orwell, 1949). Controlling human behavior through manipulation of reported financial information is an above-board professional fact (Solomon, 1978). The willingness of elected officials to craft financial information is apparent in the history of accounting standards.

Statement of the Problem

One of the most influential pieces of research on ethics in the accounting profession is a study by Lawrence Ponemon. The study is reported first in his dissertation (Ponemon, 1988), then in the professional literature (Ponemon, 1992a). A process of

ethical selection in public accounting firms is described. Ponemon provides evidence that the upper ranks of Certified Public Accountants in public practice are staffed by individuals who exhibit a lesser capacity for moral judgment. His interpretation is that, in accounting firms, the selection process by which people are promoted to the rank of manager, and then to partnership, is one that discriminates against those who have a more highly developed capacity for moral reasoning. He concludes: "As a result, those at the top are ill equipped to deal with, and resolve, the multitude of ethical conflicts that abound in everyday practice" (Ponemon, 1992a, p. 254).

Importantly, the argument presented is not that this process is in place in a certain few firms. The argument is that the process is a pervasive characteristic of the profession, highly uniform across firms, and dramatic in its effects. Data are presented in which, between the ranks of supervisor and partner, the moral reasoning capacity of CPAs in public practice drops 1.59¹ standard deviations. Consequently, partners, as a group, possess a capacity for moral reasoning that is highly deficient. To achieve such an effect, deficient moral reasoning, as a criterion for promotion, must predominate to the exclusion of other criteria, such as administrative and technical competence, as well as personability, character, intelligence, and legacy. Moreover, this condition must be true for the plurality of the thousands of accounting firms, in the hundreds of communities and subcultures that make up the United States. If only a few firms fall into the hands of moral people, the

¹ From the mean DIT P score for the sample of supervisors (47.74) to the mean for the sample of partners (32.17) there is a 15.57 point drop. The standard deviation for the sample of supervisors is 9.79; thus a 15.57 point decline is 1.59 standard deviations. See Ponemon, 1992a, p. 247.

average moral reasoning capacity for all firms would be lifted. The balance of firms would have to be sufficiently less competent, morally, to offset the effect. This is a dramatically devastating characterization of the accounting profession.

Need for Further Research

The research conducted by Ponemon needs to be retraced for theoretical and methodological reasons. Ponemon's research is framed within the cognitive developmental paradigm, and there are potentially relevant problems with the paradigm as a tool for differentiating mature from immature moral reasoning in adult populations. These problems have not been adequately explored. One problem pertains to a well documented bias in the measurement of moral judgment, according to which political conservatives, as compared to political liberals, exhibit lower scores on tests of moral reasoning (Alker and Poppen, 1973; Candee, 1976; Emler et al., 1983; Lind et al., 1982; Markoulis, 1989; Nassi and Abramowitz, 1979; Rest, 1979). Combine this bias with a similarly well documented trend toward increasing conservatism with increasing age (Eysenck, 1971; Feather, 1978; Glamser, 1974; Ray, 1985; Truett, 1993; Wilson and Patterson, 1968), and Ponemon's finding may reflect what is more appropriately characterized as a not at all surprising diminishing incidence of leftist thought.

Second, there are methodological problems with the research, problems reflecting upon the quality of the empirical data and the generalizability of the results. Representation in Ponemon's sample of the northeastern part of the country is disproportionately high, but the results are generalized to the national population. In

addition, the profile of the size of the firms represented in the sample does not correspond with the profile of the size of firms that make up the population from which the sample was drawn. Consequently, there is an overriding concern over the identity of the population to which to generalize the results of the research.

Ponemon generalizes his results to the profession as a whole and concludes that there is something very wrong with the profession, something very wrong with every firm of every size, something very wrong in every region of the country. If this is an appropriate generalization, then for an effective response to the problem, the profession may need to look for pervasive and culturally uniform factors. One such factor may be the impact of a litigious environment, and the corresponding emphasis on the legal defensibility of work product. Another may be the American Institute of Certified Public Accountants' influence over accounting curriculum by means of its control over the content of the CPA exam. Perhaps Ponemon's results are properly generalized to multinational firms, more specifically, to firms that account for the majority of audit and advisory work for publicly traded companies. If so, it may be necessary to look to a more specific, but no less significant, underlying cause, such as a highly inbred and self-perpetuating culture that informally ties together the few largest firms and the organizations they dominate.

In a second study, Ponemon and Gabhart (1993) performed a similar comparison of P scores for individuals at different professional levels in several international accounting firms in the northeastern United States, and for a firm in Ontario, Canada. Individuals in the U.S. firms exhibited the same pattern that was exhibited in the national

survey data analyzed in Ponemon's 1988/1992 study. Scores for individuals in the Canadian firm, however, increased with levels in professional position. Ponemon and Gabhart speculate that the difference in patterns is attributable to differences between socialization pressures present in the professional cultures in the United States and Canada. Shaub (1994) studied a sample of auditors from several southwestern offices of a multinational firm. Shaub's data exhibited a comparatively small decline in the P score from the staff level to the partner level. Moreover, the P scores are as much as twenty percent higher for managers and partners, as compared to those reported in Ponemon's study. Such inconsistent results provide additional reason to re-examine the conclusion that negative ethical selection is uniform and endemic to public accounting. Socialization and selection processes in different firms may very well reflect personalities of founders and managers of those firms, but to conclude that all firms have the same personality, is to conclude a common circumstance faced by them all. There is a considerable difference between conditions in place in a certain few firms and conditions in place in all firms.

Concerns about ethics are legitimate. If the nature of the ethical problems faced by the profession is inaccurately characterized in the literature, however, then collective efforts to address the problem may be, as a consequence, less than optimally directed.

Statement of Hypotheses

Hypotheses addressed in the present study are drawn from theoretical issues pertaining to a particular psychological paradigm that has become the basis for much of the research on ethics in the accounting profession. Hypotheses also are drawn from

methodological issues pertaining to a key piece of research in this area. It is hypothesized that the Defining Issues Test, a widely used test of cognitive moral judgment, functions as an indirect measure of socialization (defined as the internalization of organizational values) with respect to the ideological content or style of reasoning. Thus, while individuals at the top of the accounting profession exhibit a preference for conventional reasoning, that preference does not constitute a lack of capacity for principled moral judgment.

Furthermore, certain methodological errors may account for results upon which Ponemon bases his conclusions. There is no evidence in Ponemon's 1988/1992a study that sole proprietors were segregated from the population of partners. Herein it is hypothesized that sole proprietors, who comprise the simplest accounting organizations, and partners, who head up complex accounting organizations, are not relevantly similar. Incorrect inclusion of sole proprietors in the population of partners may lead to conclusions that are directly contrary to those that should be drawn. If most of the "partners" tested in Ponemon's study are in fact sole proprietors, and if sole proprietors represent individuals who have exited larger firms (which seems likely considering experiential requirements for certification), then it would seem that characteristics that he attributes to individuals who advance in firms are in fact characteristics of individuals who have exited firms.

Potential methodological errors in the work cited above give rise to two additional hypotheses. First, it is hypothesized that there are regional differences in ideologies that manifest themselves in performance on tests of moral cognition. Practices that may operate in one firm, in one area of the country, are not determinative of practices that

operate in all firms, in all areas and subcultures, from one end of the country to the other. Second, it is hypothesized that the selection process posited by Ponemon will not be evidenced by lower scores on a test of moral cognition by those who occupy the highest ranks in the profession. This last hypothesis is a restatement of the one supported in Ponemon's 1988/1992a study.

Objectives of the Study

Objectives of the study are as follows: first, to examine the political content bias in the Defining Issues Test, and to evaluate this bias as a potential explanation for Ponemon's results. Second, to retrace Ponemon's research, but with a sample that is clearly representative of a national population. Lastly, to test a hypothesis that Ponemon's results are in part attributable to a misspecification of the population.

Purpose of the Study

The purpose of the study is to develop empirical and theoretical grounds in support of research that is not framed within the cognitive developmental paradigm. Cognitive developmental theory is a valuable psychological paradigm as regards human understanding of the development of moral reasoning. However, it does not provide a full characterization of moral reasoning. In addition, if Newtonian mechanics constitutes a mature paradigm, the cognitive developmental paradigm is not a mature paradigm. It continues to evolve, and many issues pertaining to the theory, including some of the principal tenets, are the basis for ongoing research. Conclusions of studies that are framed within the cognitive developmental paradigm should be qualified accordingly.

Cognitive developmental theory may not be the most relevant paradigm to certain practical questions about the ethical behavior of accountants. Unethical behavior might be studied as a matter of cognitive capacity. From this perspective, immoral behavior is a function of an inability to recognize a moral problem, an inability to comprehend the interests of those who can be expected to be affected by an act, an inability to comprehend the reasonably anticipatable consequences of behavior, and an inability to apply self-derived moral principles. Contrarily, unethical behavior might be studied in light of the value systems that constitute the subculture that is the accounting profession.

These two approaches are neither mutually exclusive nor independent. Certain value systems are more consistent with principled moral reasoning than are others. But the two approaches also are far from coincident. From a cognitive developmental perspective, the structurally conventional moral reasoning of a peripatetic Catholic missionary, and the structurally conventional moral reasoning of a peripatetic Hizbullah terrorist are, in both cases, conventional moral reasoning. Developmentally neutral differences between the norms that are respectively characteristic of Catholic missionaries and Hizbullah terrorists, however, would appear to be very relevant to an understanding of differences in their behavior.

The study by Ponemon cited previously has established the cognitive developmental paradigm as a research tool relevant to the study of ethics and socialization in the accounting profession. For those of us in academe who are moral refugees, having found certain socialization pressures in the public accounting firm unpalatable, the ethical selection hypothesis is appealing and common sense. Consequently, Ponemon's study,

which provides empirical evidence of that process, has gone a long way toward establishing the cognitive developmental paradigm as a research tool.

However, there are a number of reasons why the socialization process in public accounting firms might need to be recharacterized and researched as primarily a developmentally neutral phenomenon. First, there are potential problems with the study undertaken by Ponemon, as noted above, and as they are examined further herein. Secondly, research pertaining to the moral behavior of accountants, undertaken in the last ten years, may overstate the ability of cognitive developmental theory to account for the moral behavior of accountants. Third, problems with cognitive developmental theory have not been adequately developed in the accounting literature. The purpose of the present study is to shed light on the need for research in other directions, specifically, research focusing on the culture of the accounting profession as a developmentally neutral matter of reasoning "content." George Washington's ownership of slaves, for example, is generally considered a cultural issue, and not a matter of his lacking the cognitive capacity to reason about social, political, and philosophical issues.

Methodology

Sources of data, the data collection procedure, and the general design of the research are briefly outlined below. In sum, the research is designed to efficiently address two dimensions of concern: one theoretical and one methodological.

Sources of Data

Data are collected by means of a questionnaire distributed to a sample of CPAs drawn from the American Institute of Certified Public Accountant's data base of members in public practice. AICPA membership is the most comprehensive source of individuals representing a national population of CPAs, and it is also the source of data used in Ponemon's study. The membership of the AICPA is not one and the same as the membership of the profession. This limitation on the research is noted and implications of the limitation are discussed where pertinent.

Additional cross sectional data are collected from a population of attorneys to provide a reference for comparison of cross sectional results for accounting firms. Explanation of results of any phenomenon that are common to both types of organizations should not be specific to circumstances that bear on either exclusively.

Survey Questionnaire

The survey questionnaire (Appendix B) consists of the following: (1) a demographics section (appropriately modified for the questionnaire distributed to attorneys), (2) the Collins-Hayes Short-Form Conservatism Scale, (3) the short form (three dilemma) Defining Issues Test (DIT), and (4) a section which varies in content as necessitated by the specific hypothesis being tested. The conservatism scale is intended to provide a measure of reasoning "content" or ideology with respect to social issues. The Defining Issues Test is a widely used means for measuring the level of maturation of an individual's capacity to reason about moral problems. It is used in this study as a measure

of moral judgment, but it is used with objection, because a weakness of the instrument may be material to certain conclusions expressed in the literature. Hypotheses pertaining to this weakness are part of this study.

Research Design

There are two dimensions to the research, one pertaining to theoretical issues in moral psychology, and the other focusing on the implications of methodological problems in Ponemon's 1988/1992a study. To demonstrate that the Defining Issues Test results may be skewed by political ideology, CPAs and attorneys are asked to respond to the DIT from their own perspective and from the perspective of a political liberal, if they have identified themselves as a conservative, or from the perspective of a political conservative, if they have identified themselves as a political liberal. Changes in scores on the Defining Issues Test are then analyzed to determine the potential of "presentation effects," grounded in political ideology, to influence scores on the test. In turn, these effects are related to results in previous research that ascribe to accountants characteristics of moral judgment capacity that may be traceable to such "presentation effects."

The second dimension consists of addressing and correcting methodological errors in Ponemon's 1988/1992a study, and on testing hypotheses suggested by those errors. A close examination of Ponemon's research supports the possibility that data collection errors might account for, or undermine to some degree, the results of the study.

Expected Contribution to Knowledge

The study is expected to contribute to the understanding of ethics and socialization in the accounting profession. In part, the study is expected to clarify certain limitations of the cognitive developmental paradigm. In part, the study is expected to challenge conclusions reached in prior studies that have compelled a certain nature of response by the profession.

General Outline

Chapter II consists of a review of literature pertaining to socialization in organizations, with an emphasis on accounting firms, regulation, "regulatory capture," congressional studies and administrative reports on the oversight function, studies pertaining to ethics in the accounting profession, cognitive developmental theory, and research in accounting involving cognitive developmental theory. Chapter III consists of a critical assessment of issues raised by the literature review and a statement of specific hypotheses derived in the process. Chapter IV consists of a discussion of the methodology, data collection techniques, and statistical methods to be used. Results of the data analysis are presented in Chapter V. Chapter VI consists of discussion of findings, implications of findings, limitations of this study, and suggestions for further research.

CHAPTER II

LITERATURE REVIEW

Literature on regulation, socialization, and ethics in the accounting profession is reviewed below. Reviewed first are congressional studies and administrative reports on oversight of the accounting profession. Second, studies on the socialization process in accounting organizations are discussed. The third part consists of a cursory explanation of the cognitive developmental paradigm, instruments used to measure cognitive moral development, and studies on ethics in the accounting profession that have been framed within the cognitive developmental paradigm. Additional material is reviewed in Chapter III as part of the development of hypotheses that are tested empirically.

Oversight of the Accounting Profession

Bernstein (1955) describes a form of decay by which regulatory agencies are captured by the clientele they regulate. Critical circumstances and forces that give rise to the creation of a regulatory agency tend to dissipate in time, but the political forces of those regulated by the agency persevere. For reasons of self preservation, regulators tend to support the status-quo because, in the face of serious challenges to the status quo, those regulated by the agency mobilize their political forces to pressure legislators responsible for the continuing authority of the agency. The legislators, in turn, pressure

the regulator. Over time, the regulatory agency tends to identify, increasingly, with the interests and arguments of those the agency regulates.

Regulation and Investigation

Over the past two decades, a number of federal studies have provided substantial, although largely anecdotal, empirical evidence that the process described by Bernstein is at work in the institution broadly conceived as the accounting profession. Motivated by the collapse of Penn Central Railroad and irregularities in audited accounting information published by Equity Funding, Gulf Oil Corporation, Northrup Corporation, and others, two salient federal studies were conducted. In 1976, a report was issued by U. S. House of Representatives Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce (chaired by John E. Moss) titled "Federal Regulation and Regulatory Reform" (commonly referred to as the "Moss Report"). In the report, salient failures of corporate financial reporting, in what was then recent history, are attributed, in part, to regulatory capture. Among other things, the Moss Report found that staff appointments, in the Securities and Exchange Commission, were often politically influenced, and that the SEC had abdicated its responsibilities with respect to the setting of accounting standards, leaving the latter to the accounting profession.

A more comprehensive and critical assessment of the profession was published in 1977 by the Senate Subcommittee on Reports, Accounting, and Management of the Committee on Government Operations. The subcommittee was chaired by Lee Metcalf, and the Report titled "The Accounting Establishment" is commonly referred to as the

“Metcalf Report.” In the report, major issues are identified that have been, and continue to be, focal points of criticism, research, and response. Firms, constituting what was then the “Big Eight,” are cited for exerting inordinate influence over the profession, and over financial reporting, for the majority of publicly traded companies.

The profession was cited for impairing its independence by involving itself in the business affairs of clients. Services might include advocacy of client interests on controversial issues with government agencies and institutions, recruiting of executive staff for clients, market analysis, financial management, and other forms of advisory services. Serious questions of independence arise when accountants switch hats and, as auditors, examine financial reports that, in part, reflect results of the auditors’ services.

The profession also was cited for being informally intertwined and effectively in control of federal and private organizations whose purpose is oversight of the profession. The principal professional organization of CPAs, the AICPA, was criticized for being organized in such a fashion as to perpetuate a particular professional culture and to perpetuate control of the profession by a closed rank group of parties (the “Accounting Establishment”) that readily identify with the self-interests of their corporate clients. The Accounting Establishment controls, the argument goes, access to the profession, and it does so in a number of ways. Control is exerted by the AICPA over the content of the CPA exam, and, thus, over the content of accounting text books, the structure of accounting programs, and the substance of accounting education. Controlling influence is exerted by the AICPA over the content of accounting standards through formal and informal ties with the Financial Accounting Foundation, and, in turn, over the FAF’s

standard setting arm, the Financial Accounting Standards Board. Formally, the AICPA's board of directors has the power to elect and remove members of the FAF board of trustees, and informally, the power to control standard setting agenda. The final form standards take is powerfully influenced by input from members of the AICPA and their corporate clients. The Securities and Exchange Commission recognizes accounting standards issued by the FASB as the only standards that satisfy Federal securities laws.

The accounting profession's aversion to taking on responsibility for detecting and reporting financial fraud was the focus of a six part report of the investigations of the Subcommittee on Oversight and Investigation of the Committee on Energy and Commerce of the House of Representatives (U.S. House, Subcommittee on Oversight and Investigations, 1985a, 1985b, 1985c, 1985d, 1985e, 1985f). The committee was chaired by Representative John Dingell and is generally known as the "Dingell Committee." The six documents comprising the report, titled "SEC and Corporate Audits," reflect scrutiny of the role the profession played in costly failures of a number of institutions, the most salient of which are Beverly Hills Savings and Loan Association, Home State Savings, Drysdale Government Securities, and E.S.M. Government Securities.

Professional accountancy's response to criticisms of the profession includes private sponsorship of a number of investigatory and advisory committees. The most salient of these are the "Cohen Commission," the "Anderson Committee," and the "Treadway Commission." Changes also have been made in the AICPA and in the Financial Accounting Foundation. The AICPA has effected organizational changes and has issued new auditing standards, ethical standards, and standards of membership. Changes in the

organizational structure of the FAF have been effected. Changes which increase the representation of information users on the FAF's board of directors and on the Financial Accounting Standards Board.

Cohen Commission

The Cohen Commission (American Institute of Certified Public Accountants, 1978) was an independent commission charged to assess the public's expectations of auditors, to draw conclusions, and to make recommendations regarding the appropriate responsibilities of auditors. The Commission addressed two salient issues. First, many people appear not to understand the role of the auditor and the nature of services offered. Second, the accounting profession has failed to evolve rapidly enough to keep pace with the rate of change in information technology and other aspects of the business environment. The Commission recommended that the profession respond in the following ways, among others: increased support of academic research regarding issues confronting the profession, establishment of professional schools of accountancy, in the nature of law schools, as necessary to the development of a sense of professional identity, and development of standards pertaining to auditor independence in circumstances where advisory services are provided to an audit client.

The commission also recommended continuance of the status quo in two respects. First, a single set of standards of reporting and auditing should be applicable to both publicly-traded companies and closely held companies. Second, the AICPA, not the SEC, should set auditing standards.

With respect to regulation, the Commission recommended higher standards for entrance into the profession and higher standards for advancement. The Commission also recommended development of technical and ethical standards that are more comprehensive than those in place at the time, the design and implementation of quality control standards that encourage and monitor compliance with standards, and an effective disciplinary system. Oversight should remain in the hands of the profession, should include independent peer reviews of firms, and would include publicly available reports of the results of reviews. Independent oversight groups, analogous to corporate audit committees, would be appointed to supervise the peer review process.

Anderson Committee

The Anderson Committee (American Institute of Certified Public Accountants, 1986) was charged to respond to the changing economic, social, legal, and regulatory climate faced by the profession. The Committee also was charged with responding to the Oversight Board's perception of diminishing faith in the accounting profession's ability to insure integrity of financial information. Recommendations of the Committee include the following: (1) substantial reforms to the way the AICPA achieves adherence to its standards, (2) new approaches to the development of ethical standards to improve the relevance and effectiveness of the code of professional ethics, (3) new approaches to the development of technical standards to provide more meaningful guidance to practitioners regarding the scope and nature of services, and (4) establishment of a new program for systematic monitoring of practice to assure compliance with professional standards. The

committee also recommended raising basic educational standards necessary for entrance into the profession, establishing new standards of continuing professional education, and increasing minimal standards for membership in the AICPA.

Treadway Commission

The Treadway Commission (National Commission on Fraudulent Financial Reporting, 1987) was a private commission funded by the American Institute of Certified Public Accountants, the American Accounting Association, the Financial Executives Institute, the Institute of Internal Auditors, and the National Association of Accountants. The Commission's charge was to identify factors underlying fraudulent financial reporting. Principle conclusions are: first, independent public accountants play a crucial but secondary role in the fairness of financial reporting. Second, management's role is foremost. Third, legal, financial, and other advisors add to pressures that lead to fraudulent financial reporting, by counseling clients to achieve desired ends through means that are too close to the line between what is legal, and what is not. Fourth, investment bankers exploit gaps or ambiguities in accounting standards to devise questionable financing techniques and transactions. Finally, financial analysts' myopic notions of wealth maximization focus too closely on short run gains.

As for the role public accountants play in the problem of fraudulent financial reporting, the commission recommended changes in auditing standards, development of procedures that enhance audit quality, provisions for more effective communications about the auditor's function, and improvement in the process by which audit standards are set.

To improve audit quality, new requirements were recommended that would necessitate review of all first year audits, and “second partner” reviews. Greater sensitivity on the part of public accounting firms to pressures within the firm, pressures that may adversely impact audit quality, also was recommended.

AICPA and FAF

In response to the criticisms and recommendations, the AICPA has effected changes in the structure of the organization, as well as in auditing and ethical standards. A peer review program is prescribed at Sections 220 and 220R of the bylaws of the AICPA (AICPA , 1996). The “practice-monitoring” program is administered by the SEC practice section of the Institute, and it is directed at the accounting and auditing practices of firms that audit publicly traded companies. In 1990, the AICPA made the program mandatory for all AICPA member firms that audit publicly traded companies. The Public Oversight Board oversees peer review of firms that have SEC clients. Also, as regards SEC clients, auditors must report to corporate audit committees the amounts of fees charged in connection with management advisory services, and a description of such services (American Institute of Certified Public Accountants: CPA Firms Division, 1995, §1000.08(i)).

Changes also have been made in the manner in which the Financial Accounting Foundation operates. Meetings of the Financial Accounting Standards Board and Auditing Standards Board are now public, and objective steps have been taken to increase representation, on these two boards, of auditors, educators, financial information users,

and financial statement preparers. Continuing development of the conceptual framework promotes theoretical continuity in the process of developing standards, and diminishes the effect of political influence on the process.

General Accounting Office

In response to failures of banks and savings and loan institutions, the General Accounting Office was called upon to investigate the effectiveness of the accounting profession in auditing these institutions. Renewed public concerns over the effectiveness of audits of public companies resulted in a number of reports by the GAO. These are cited below because of the informative content of their titles:

CPA Audit Quality: Failures of CPA Audits To Identify and Report Significant Savings and Loan Problems (U.S. General Accounting Office, 1989);

CPA Audit Quality: Status of Actions Taken To Improve Auditing and Financial Reporting of Public Companies (U.S. General Accounting Office, 1989);

Bank Failures: Independent Audits Needed to Strengthen Internal Control and Bank Management (U.S. General Accounting Office, 1989);

Thrift Failures: Costly Failures Resulted From Regulatory Violations and Unsafe Practices (U.S. General Accounting Office, 1989);

Prevention, Detection, and Reporting of Financial Irregularities, Statement of Charles A. Bowsher, Comptroller General of the United States (U.S. General Accounting Office, 1990);

Failed Banks: Accounting and Auditing Reforms Urgently Needed (U.S. General Accounting Office, 1991);

Audit Committees: Legislation Needed to Strengthen Bank Oversight (U.S. General Accounting Office, 1991).

In sum, these reports identify a pressing need to improve audit quality and financial disclosures. A significant number of failures were attributed to serious weaknesses in internal control procedures and critical lack of management competence. While not all (one third, approximately) of the failed institutions were subject to annual audits, many major institutions were. Those that were not subject to annual audits held accounts for, or otherwise had relationships with, publicly traded companies that were.

Most recently, the General Accounting Office issued its report evaluating the response of the profession to the critical issues raised during the preceding decade (U.S. General Accounting Office, 1996). In summarizing its assessment, the GAO stated that while the profession has responded effectively to issues raised over the two preceding decades, concerns remain. The standard setting process continues to be a matter of concern, because of the nature of the groups that continue to exert influence over the process, and because of the insufficient representation of financial information users in the process. Concern exists with respect to the expanding role of nontraditional financial data and the need to provide assurance with respect to such data. Concern exists over auditor responsibility for the quality of internal control systems, a particularly salient issue in the present technological environment where the boundaries of information systems are increasingly fuzzy. Concern exists over the capacity of the profession to carry out its most basic charge when operating in a litigation avoidance (risk averse) mode, as highlighted by the necessity of the passage of the Private Securities Litigation Reform Act of 1995. Of course, concern also continues to exist over the profession's ethical culpability in salient instances of failures of businesses and/or of whole industries.

Studies in Socialization in Accounting Firms

Professional ethics is a function of the socialization processes faced by individuals newly entering the profession. Socialization processes faced by new entrants include pressure for ethical compromise. Each process is a reflection of the other. Accordingly, a cursory review of salient research pertaining to organizational socialization, and socialization in the accounting profession, is provided below.

Organizational socialization is defined as: “. . . the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (Van Mannen and Schein, 1979, p. 211). Through socialization, an individual is provided with “. . . an ordered view of the work life that runs ahead and guides experience, orders and shapes personal relationships in the work setting, and provides the ground rules under which everyday conduct is to be managed” (p. 211).

New entrants into the accounting profession face significant socialization pressures. In fact, socialization is required in the technical standards at AU 150.02 and AU 161.03 (American Institute of Certified Public Accountants, 1996). In turn, the profession itself faces significant pressures in the form of changing standards and expectations, increasing regulation, economic internationalization, rapidly evolving information technology, and ever-present contradictory pressures to create a high quality work product while constraining auditing procedures so as to minimize the cost of the work product. McNair (1991), and Chow et al. (1988), have suggested that pressures that bear on the profession necessitate a continuing process of assimilation and accommodation, an attitude of social compromise, which in turn may translate into an

attitude of ethical compromise. Paradoxically, it would seem that the forces of socialization that lead people away from instrumental and self-serving behavior would, at the same time, present pressure contrary to the expression of individual moral principles.

Generally considered the most comprehensive model of organizational socialization is the six dimension model developed by Van Mannen and Schein (1979). According to the model, socialization processes can be defined in terms of where they fall along six continuous dimensions. Socialization processes are more or less the following: (1) collective or individual, (2) formal or informal, (3) sequential or variable, (4) fixed or variable, (5) serial or disjunctive, and (6) investiture or divestiture. Only the first and second of these will be defined because they are particularly significant to the subject of the present study. Collective socialization processes are those programmed experiences to which organizational members are subject, as a group. Individual socialization refers to the process of exposing individuals, singly, to relatively unique experiences. Formal processes consist of programs for training members, whereas many organizational functions and boundaries, as well as implied (but undiscussed) cultural rules, are learned through informal processes, as one is exposed to the organizational environment.

Dirsmith and Covalski (1985) have provided evidence that control over quality of performance of audit tasks, socialization, and instruction as to politics and power, are achieved by non-formal non-bureaucratic means, the most significant of which is guidance by mentors. Jones (1986) provides evidence that individual socialization processes lead to innovative role orientations on the part of organizational members, and that institutionalized (collective) processes lead to custodial role orientations. Ashford and

Saks (1996), in the same vein, provide evidence that role innovation, role ambiguity, role conflict, stress symptoms, and intention to quit, are negatively related to institutionalized socialization processes. Job satisfaction and organizational commitment are positively related to institutionalized socialization processes.

Schneider (1987) proposed that characteristics of the people that make up an organization define the organization. Furthermore, he has proposed that founders and members of top management have a long term effect on organizational culture. Processes of attraction, selection, and attrition, are driven by the fit between the character of entrants and the culture which those founders and managers define. Schneider (1995) provides evidence that, over time, homogeneity increases with respect to the values and characteristics of the persons who make up an organization. Furthermore, there is growing evidence that agreement between an individual's values and the values of an organization predicts individual job satisfaction, and, thus, commitment, turnover, and performance (Chatman, 1989, 1991; O'Reilly, Chatman, and Caldwell, 1991).

Benke and Rhode (1980) have shown a moderate relationship between job satisfaction and certain characteristics of persons and their professional specialties. Among audit and management advisory services specialists, age, hierarchical position, and tenure, among other factors, are positively related to job satisfaction. The authors speculate that older individuals have had more opportunity to find their niche. There is a negative correlation between job satisfaction and sociability/ascendancy, giving rise to speculation that unless one likes to work with and be with other people, the constant interaction with clients and co-workers, required by audit work, may be difficult.

Unsociable or non-ascendant people may be very uncomfortable and, thus, less satisfied with their job than are others. Among auditors, there is a negative correlation between job satisfaction and self-fulfillment. The relationship is speculated to be a consequence of audit work not being a self-fulfilling type of work, and auditors having a capacity to be satisfied with work that is generally not self-fulfilling. Among tax practitioners, professional challenge and involvement with work perceived to be more appropriate for less qualified people, are indicators of satisfaction or dissatisfaction.

The same data were reanalyzed by Benke and Rhode (1984), leading to the conclusion that among higher level professionals, certain variables are discriminatory with respect to the intent to stay or leave a firm. Among audit professionals, the intent to leave is positively related to satisfaction with the nature of audit work, as well as with length of tenure. Among tax specialists, satisfaction with co-workers is the most discriminatory variable. Among MAS specialists, challenge is the most discriminatory variable.

An important vein of research on organizational socialization is "Expectancy Theory" (Valence-Instrumentality-Expectancy model of occupational development; Vroom, 1964). "Valence" refers to the value one attaches to certain outcomes. "Instrumentality" refers to the necessity or sufficiency of a means in effecting an outcome. "Expectancy" refers to one's perception of the likelihood of achieving an outcome. Expectancy theory, as it relates to organizational socialization, involves the value one attaches to certain outcomes such as social standing, economic security, or professional achievement. It also involves the instrumentality that one attaches to a position or profession.

In a study of audit personnel of two public accounting firms, Ferris (1977a) reports that as the level of perceived uncertainty in one's tenure increases, job satisfaction decreases. Dillard and Ferris (1979) have shown that individuals who opt out of the profession tend to place less emphasis on ends such as prestige, income, job security, promotion, and challenge, while exhibiting opposition to working in a formal environment. These same individuals are relatively unconcerned about acquiring prestige among colleagues. Dean et al., (1988) have discerned that new entrants to the profession find significant discrepancies between work expectations and perceptions after becoming members of professions. They go on to hypothesize that the commitment new employees have to an organization is affected by expectations that are not being confirmed by actual work experience. Furthermore, expectations decline dramatically with length of tenure, particularly expectations with respect to norms and values.

Cognitive Developmental Paradigm

The majority of recent studies pertaining, directly or indirectly, to ethical socialization in accounting rely heavily on the cognitive developmental paradigm (Armstrong, 1987; Arnold and Ponemon, 1991; Bernardi, 1994; Holt and Jeffrey, 1991; Jones and Hildebeitel, 1995; Lampe and Finn, 1992; Ponemon 1990, 1992a, 1992b, 1995; Ponemon and Gabhart, 1990, 1993; Ponemon and Glazer, 1990; St. Pierre et al., 1990; Shaub, 1994; Tsui and Gul, 1996). In the following, cognitive developmental psychology, more specifically, the psychology of cognitive moral development, and some the issues and criticisms faced by the paradigm, are discussed as a prerequisite to understanding the

material reviewed and the analysis undertaken in the balance of this dissertation. First is an explanation of the theory of cognitive moral development at a very basic level. Second is a description of instruments used to measure cognitive moral development. Third, differences in competing theoretical positions as to the validity of what is referred to as the “simple stage” model are explained. The interplay between the “structure” of reasoning and the “content” of reasoning also is explained. Lastly, behavioral studies of the accounting profession that are framed within the cognitive developmental paradigm are reviewed.

Theory and Measurement

Lawrence Kohlberg has extended Piagetian theory pertaining to cognitive moral development (Piaget, 1938) into a model consisting of a hierarchy of six stages. Each stage represents a more inclusive, and more adequate, “sociomoral perspective.” The stages are sequentially invariant, and once an individual’s thinking has matured to the level of a particular stage, no regression should be exhibited. A brief description of the six stages appears in Table 2.1.

Cognitive moral development is theorized to consist of a progressively objective and inclusive comprehension of the value and potentialities of social cooperation. In the early stages of development, rules and expectations are external to the self, and reasoning is highly instrumental. The child reasons that one should not harm one’s playmate because one might be punished for doing so, and punishment is to be avoided. Beyond that, of course, if the playmate is harmed, there will be no one with whom to play. At the

conventional level, one identifies with group norms and perceives oneself to be an agent of the group interest. Norms are seen as a means for arbitrating between individual wishes and optimizing collective interest. Such norms can take the form of a system of contractual social rights, a code of ethics, or a higher order moral or religious law. The post-conventional level is characterized by Kohlberg as a "prior-to-society" perspective. For an individual who's reasoning is post conventional, moral codes and laws are themselves subject to assessment on moral grounds. Characteristic of postconventional morality is the conceptualization of autonomous principles for optimizing social welfare.

TABLE 2.1

KOHLBERGIAN STAGES OF MORAL DEVELOPMENT

Preconventional level (concrete individual perspective):

- Stage 1: Obedience to authority (motive is avoidance of punishment)
- Stage 2: Instrumental purpose and exchange (cooperation motivated by simple self interest -- one's perspective is limited in scope to the awareness of self interest, to the measurement of cost and benefit to oneself, and action is accordingly limited to the promotion of self interest)

Conventional level (member-of-society perspective):

- Stage 3: Mutual expectations, expectations and conformity (action conforms to what is expected of persons in a particular role)
- Stage 4: Social system and conscience maintenance (action maintains or is the bedrock value of a moral social system or a system of personal moral beliefs)

Post conventional level (prior-to-society perspective):

- Stage 5: Social contract and individual rights (action based on rules developed with equitable and fair input from all parties at interest)
- Stage 6: Universal ethical principles (action based on principles of justice and right as would be designed by unbiased sentient beings)

Candee and Kohlberg (1987)

The Kohlbergian paradigm is not a mature paradigm, and, as a consequence, there are differences in the literature as to how to measure and interpret certain aspects of moral judgment. In the literature, there has not been sufficient recognition given to the fact that between 1958 and 1978, Kohlberg had substantially redefined the six-stage construct and the interpretive framework by which moral development is assessed. So much so, that when earlier studies are recodified and reinterpreted in terms of the most recent construct and then the scoring is compared to the original scoring, a correlation of approximately .39 results (Rest, 1986, p. 199). Very simply, over the period beginning with Kohlberg's dissertation to the present, Kohlbergian theory has undergone material evolutionary change (Candee and Kohlberg, 1987; Colby and Kohlberg, 1987; Kohlberg, 1969; Kohlberg et al., 1983; Rest, 1979, 1986). Two of the issues driving change are the following: (1) the adequacy of the "simple stage" model, and (2) the interplay between the "structure" of reasoning (general organizing principles or patterns of thought) and the "content" of reasoning (specific moral beliefs or opinions). These issues are sufficiently unsettled that two versions of the six-stage construct presently dominate developmental psychology. The two models differ as to the interplay between the content and structure of reasoning, and as to the general nature of stages. One model will be referred to as the Kohlberg model, and the other as the Rest model.

Kohlberg and Rest agree as to the description of the types of reasoning that are characteristic of moral development. However, Kohlberg and his associates theorize that each developmental stage represents a structurally distinct mode of reasoning, where structure is defined as a system of transformational laws that govern the course of

reasoning (Piaget, 1970). The Kohlberg model is a “hard” or “simple” stage model in which each stage is characterized by a structurally more advanced type of reasoning. It is the highest level of reasoning of which an individual is capable that is definitive of a developmental stage. During transition from one stage to the next, an individual will exhibit reasoning characteristic of the preceding stage, and of the next stage in sequence. The Rest model is a “soft” or “complex” stage model. Rest contends that many types of reasoning can be employed by a person at any stage of maturity and that a person’s moral reasoning is adequately described only in terms of a quantification of the proportion of the different types of reasoning employed. Maturation is reflected in the increased prevalence of reasoning that is more principled and thus more “adequate.”

Two instruments are widely used to assess moral maturity. Those in the Kohlbergian camp utilize the Moral Judgment Interview (MJJ). Responses to hypothetical dilemmas are elicited through open ended interviews. To minimize the gap between performance and competence, the MJJ utilizes the following: (1) standardized hypothetical dilemmas, (2) probing questions that attempt to elicit the upper limits of the subject’s thinking, and (3) a measurement system that categorizes a person’s moral reasoning in terms of the highest level of thinking expressed with respect to a particular moral idea. Consequently, the MJJ is assumed to measure the most advanced reasoning of which the individual is capable. The stage of reasoning employed by a subject in his or her expressions regarding the dilemmas is typed in accordance with criteria detailed in a manual (Colby and Kohlberg, 1987). The method is time intensive, and it is subject to measurement bias because it relies on introspective reports of reasoning processes.

The instrument utilized to assess development under the complex stage model is the Defining Issues Test (DIT). The DIT consists of ethically charged scenarios that are accompanied by stage prototypic statements or "issues" that subjects are asked to rank. Issues that are judged to be the most definitive of the moral dilemma represented by a scenario are given a high ranking, while issues judged to be of lesser significance are assigned a lower ranking. Moral development is assessed by reference to the proportionate weights given to issues characteristic of each stage of moral reasoning. A "P score" reflecting an aggregate score for principled judgment (sum of scores for stages 5 and 6) is also determined. Because subjects need only evaluate the relevance of issues provided on the face of the instrument, the DIT is properly characterized as a test of comprehension and recognition, and not as one of spontaneous generation, such as is the MJT. As a consequence, while the DIT is very much less time-intensive than is the MJT, it is much more subject to measurement bias. While the MJT allows relatively direct assessment of the structure of reasoning generated by subjects, the DIT provides issue preference information. Rest assumes that the type of issue that a person deems important is indicative of the underlying developmental level. To minimize bias introduced by people assigning a high weight to issues that sound lofty, but which they do not genuinely understand, a scale of lofty-sounding but meaningless items, referred to as the "M" scale, is part of the test. An "A" scale that assesses responses in terms of anti-establishment orientation also is present.

Criticism has been leveled at the DIT on the grounds that, in the process of assessing moral maturity, the "structure" of moral reasoning is often confused with the

“content” of moral reasoning. For example, principled (post conventional) reasoning over a legal (conventional) matter or issue ought not to be assessed as conventional reasoning. Lind (1995) has developed a new means, increasingly popular in Europe, for measuring cognitive moral judgment. Lind’s “Moral Judgement Test” is based on “stage consistency” and is, in part, a response to the perceived inability of the DIT to disentangle structure and content.

As well, the Kohlberg model and the related scoring system for the MJT, have been reformulated in order to achieve the following: (1) accommodate certain incongruities between theory and observation, and (2) distinguish more clearly between the structure of a stage of cognitive development and the content of reasoning at the stage (Colby and Kohlberg et. al., 1983; Colby and Kohlberg et. al., 1987; Candee and Kohlberg, 1987; Kohlberg et al., 1983). The new scoring system for the MJT eliminates Stage 6 on the grounds that empirical research has not succeeded in defining a sixth stage, and that accordingly: “. . . the existence and nature of such a stage is, at the moment, a matter of theoretical and philosophic speculation” (Levine and Kohlberg et al., 1985, p. 97). Furthermore, the scoring system underwent substantial change because “earlier versions of the scoring system tended to equate the content most commonly found at a particular stage with the form or ‘structure’ of that stage” (Candee and Kohlberg, 1987, p. 555). For purposes of measuring moral reasoning, autonomous reasoning, formerly scored as Stage 6, is incorporated into stages 4 and 5 as a within stage “type” of reasoning. The remaining five stages consist of the following: (1) increasingly inclusive levels of social perspective, increasingly integrated modes of justice operations characteristic of each

stage, and (2) three moral “types” denoted A, B, and C within each stage. Moral type is one dimension of reasoning content that is not stage specific. Autonomous moral judgments, type B, are made without reference to external parameters, such as religion, social tradition, law or other authority, for justification or validation. They are made from the viewpoint of an active moral agent who holds himself or herself ultimately responsible for determining the morality of an action. Heteronomous judgments, type A, depend on external parameters for justification. Type C, relativistic reasoning, represents a metaethical position in which values are considered relative. There are no grounds for judging others. Terms such as “moral” and “duty” are considered to be empty. Solutions to moral problems can be egoistic or emotive. One explanation of relativistic reasoning is that it is attributable to a breakdown of faith in the moral frame of reference represented by a developmental stage and the incomplete adoption of a subsequent stage. Subjects rely on a poorly structured collection of intuitions from prior stages that still have some lingering validity for them (Colby and Kohlberg, 1987).

The model reflected in the DIT does not incorporate a structure versus content distinction. It does not eliminate Stage 6. It does not reflect reasoning types A, B and C. It explicitly equates “. . . the content most commonly found at a particular stage with the form or ‘structure’ of that stage.” Rest contends that content is not independent of structure, that it is not possible to hold structure constant while varying content. Rest’s hypothesis is that the type of reasoning content that a person deems important (e.g., maintaining social order) is indicative of the person’s developmental level (Rest, 1979).

Within Stage Heterogeneity:
The Significance of Content

A common misconception with respect to the stages of cognitive moral development is that each stage denotes thought that is homogeneous in all relevant respects. In large part this misconception may be due to the fact that cognitive developmental psychology is not a psychology of individual differences. Rather, it is a psychology that posits developmentally rooted structures of reasoning that are universal among all people, regardless of cultural setting. Individual differences in the content of thought are set aside as researchers look for psychological characteristics common among all people, a universal developmental path where individual differences reflect differences in maturation. However, as Rest (1979) states:

. . . it must be recognized that an assessment of moral stage is not a full characterization of a person's moral ideology. Moral stage only characterizes abstract, basic conceptual structure. A Nazi storm trooper, a Christian monk, a Communist Party boss, and an Israeli farmer can all be at Stage 4 (by virtue of basing moral obligation upon the laws or norms of their respective groups), yet the ideologies and attitudes of these individuals are bound to be radically different. Therefore we should not expect moral judgment to predict every moral attitude and choice, because much is determined by a person's culture and subculture, and by other aspects of one's ideology (pp. 168-169).

There are dramatic differences in moral ideologies between certain cultures. The materiality of within stage cognitive heterogeneity to research on the relationship between moral stage and behavior can be demonstrated simply. Assume that the population of people whose reasoning is conventional, in cognitive developmental terms, consists entirely of two subgroups: Amish Christians and Catholics. Suppose further that we have

available a wealth of empirical evidence that demonstrates that conventional thinkers are more likely than principled thinkers to drink, smoke, and dance. It does not follow that the Amish are more likely than principled thinkers to drink, smoke, and dance.

Failure to appropriately stratify the population of conventional thinkers leads to attribution to the Amish characteristics that might properly be attributable only to Catholics. Similarly, evidence of longitudinal regression of moral stage exhibited by the population of professional accountants, coupled with experimental evidence of a modest correlation between developmental stage and behavior, provides no scientific basis for the conclusion that the behavior of accountants is morally inferior.

Next, consider content issues pertaining to the most advanced stages of moral judgment. Below is an example of Stage 4 (immature) reasoning:

If man has a higher nature and is called to a higher end it is because God exists, and man must believe in him; but if there be no God then neither is there a higher nature in man, and he must fall back into the social ant-heap whose principle is compulsion.

Most people set aside God, immortality, and freedom and come under the spell of a fallacious love of one's neighbor in which God has no part, a false compassion which promotes a godless systemization of the world. Those who devote themselves to the earthly welfare of mankind rarely believe that man is destined for a higher, a divine life (Dostoevsky, 1880, trans. 1990, p. 69)

Kohlbergian "justice operations" that promote the "earthly welfare of mankind" are perceived by Dostoevsky, in the form of his character Ivan Karamazov, to be apart from moral judgment. We should expect, therefore, for Fyodor Dostoevsky not to score well on the DIT. Clearly, however, it is a stretch to characterize his thinking as philosophically immature and rudimentary in structure.

Consider Nietzsche's moral philosophy as an extreme example of mature reasoning. For Nietzsche the "will to power" is the basic force of life, and, thus, of human existence. The goal of life is not mankind, or the interests of mankind, but what mankind can become. Nietzsche did not count himself a Darwinian, because he rejects the notion that the end of life is the struggle to grasp a foothold in existence. Rather, the struggle is to achieve the ends of the "will to power." Here, again, is a philosophy that is acutely non-principled, but far from cognitively rudimentary.

Longitudinal Studies of Accounting Organizations

Three longitudinal studies have been conducted on cognitive moral development in accounting organizations and in the profession as a whole. One involves a national survey and two involve specific large multinational firms. Each is reviewed below.

In a highly significant piece of research pertaining to ethics and socialization in the accounting profession, Ponemon (1988, 1992a) measured the stage of moral reasoning of a cross section of "CPA practitioners" drawn at random from the roster of the American Institute of Certified Public Accountants. As indicated in Table 2.2, he found DIT P score to be inversely proportional to position in the highest ranks of accounting firms.

In a second phase of the study, the staff of a single unidentified multinational firm located in a large northeastern city were tracked longitudinally in order to determine whether the above pattern of DIT scores was attributable to self-selection (morally mature individuals quit) or promotion bias (morally immature people were promoted). Ponemon concludes the latter is operating.

TABLE 2.2
DIT P SCORE BY PROFESSIONAL RANK
PONEMON 1992a

	Staff	Senior	Super- visor	Manager	Partner	Total
N (usable questionnaires)	13	30	31	27	78	180
P Score Means	44.71	42.40	47.74	35.67	32.17	38.06
P Score S.D.	4.36	5.94	9.79	5.50	5.08	8.06

Ponemon 1992a, p. 247 (Table 3).

Ponemon and Gabhart (1993) performed a similar comparison of P scores for individuals at different professional ranks in several international accounting firms in the northeastern United States and for a firm in Ontario, Canada. Individuals in the U.S. firms exhibited the same pattern that was exhibited in the national survey data, analyzed in Ponemon's 1988/1992a study. Scores for individuals in the Canadian firm, however, steadily increased with levels in professional position. Ponemon and Gabhart speculate that the difference in patterns may be attributable to differences between socialization pressures present in the professional culture in the United States and Canada.

Shaub (1994) studied a sample of auditors from several southwestern offices of a multinational firm. Shaub's data exhibited a comparatively small decline in P score from the staff level to the partner level. Moreover, the P scores are as much as twenty percent higher for managers and partners than those reported by Ponemon in the first study.

Other Studies of the Accounting Profession

Several studies have found that professional accountants, as compared to other groups of professionals and college graduates, are not achieving their developmental potential for ethical reasoning. Ponemon and Glazer (1990) reported lower DIT scores for accounting students and accounting alumni from a state institution as compared with the same groups from a liberal arts institution. For a sample drawn from a large "southeastern" university, St. Pierre et al. (1990) found that accounting students have lower P scores than their non-business counterparts.

Other studies have related cognitive moral development with key aspects of professional behavior. Ponemon (1992b) has found that auditors exhibiting lesser moral maturity, in cognitive developmental terms, are more inclined to yield to pressures to underreport chargeable time. Bernardi (1994) in a study of managers and seniors in "Big Six" firms, has developed evidence of a positive relationship between principled reasoning and the rate of fraud detection, but the relationship was apparent only in the case of the managers. Ponemon (1995) developed evidence of a positive relationship between measured cognitive moral development and objectivity of judgment in litigation support decisions.

Shaub (1994) compared mean DIT P scores for 207 auditors from four offices of a big six firm located in the "Southwest" with 91 academic seniors studying auditing and accounting in a "midwestern" school. Mean DIT P scores for the two groups are 41.29 and 41.32, respectively. This result raises concerns that moral development is minimal

subsequent to graduation. Jones and Hildebeitel (1995), on the other hand, have concluded that the moral reasoning of CPAs, given an appropriate environment, can and does continue development. The authors performed an analysis of fourteen philosophical principles, which were rated by CPAs in terms of their appropriateness in resolving hypothetical dilemmas. Responses loaded on two factors. The first factor is interpreted as self-serving (instrumental reasoning), and the second factor is characterized by agreement with interpersonal expectations and conformity with organizational and professional norms (conventional reasoning). Evidence was developed of a migration away from the first form of reasoning toward the second in organizations that provide an organizational environment supportive of moral development.

Moral Sensitivity and Moral Intensity

There is a developing literature on the significance of moral sensitivity and intensity in determining behavior. Rest (1986), asserts, quite reasonably, that people must first recognize the presence of a moral problem before they can willfully direct their minds toward the problem. Jones (1991), argues that conduct is issue contingent. Certain issues compel a greater intensity of response depending on the meaning of the issues to the individual involved. Wright et al. (1971, 1996) argue that the ability to recognize the presence of a moral problem depends on an individual's moral sensitivity and the intensity of the issue. Wright's position is that the reason a person perceives a situation to be one that presents a moral issue (the cognitive judgment focus) is much less important than the sensitivity that gives rise to the perception that a situation is one that presents a moral

issue (the moral sensitivity focus). Moreover, Wright argues that moral intensity can be a principle contributing factor to the content of one's belief system. People are most likely to become sensitized to and respond to matters that "spark off their fiercest indignation" (1971, p. 195).

Review of studies and issues related to the cognitive developmental paradigm continues in the following chapter. The review focuses, however, on the material that is specifically relevant to the hypotheses tested in the present study. Hypotheses are stated as a basis for directing the empirical inquiry.

CHAPTER III

HYPOTHESIS DEVELOPMENT

This chapter consists of an exposition of theoretical and technical issues that compel additional research, and of a statement of hypotheses that follow from the exposition. Of cognitive developmental theory, criticisms are developed which bear on the interpretation of the results of empirical studies that support the hypothesis of ethical selection in the accounting profession. Two hypotheses are derived from the criticism. Possible technical problems with the research conducted by Ponemon (Ponemon, 1988, 1992a), that bear on the generalizability of his results, also are developed, and related hypotheses are stated.

Issues Pertaining to Cognitive Developmental Theory

Criticism of cognitive developmental theory has focused, in part, on the distinction between the “structure” of reasoning, and the “content” of reasoning. Reasoning structure (instrumental, reciprocal, legalistic, principled) is presumably developmental and universal. Content, on the other hand, consists of values and norms that presumably can vary between social groups and cultures, and which are expressed variously in specific moral decisions. A question particularly critical to research into ethical decision-making in the accounting profession is whether ideological bias can override conceptual capacity. In

other words, whether *preference* for certain types of moral judgment, particularly preference that is situation dependent, can override existing *capacity* for more mature types of reasoning (Alston, 1971). The sense of “ought” that dominates the reasoning of soldiers on a front line, for instance, might be highly instrumental (Stage 2), not withstanding any developed capacity to employ higher levels of reasoning. An army of hesitantly contemplative front line moral philosophers would become extinct as a consequence of selective environmental forces.

Reasoning and Issue Content

Weber (1990) has suggested that the particular circumstances in which a moral dilemma is framed may be pertinent to the type of reasoning people employ. In Weber’s study, corporate managers exhibited high levels of Stage 3 reasoning when confronted with hypothetical dilemmas framed in the context of corporate operations. Comparatively greater reliance on Stages 4 and 5 reasoning was expressed when confronted with a dilemma framed in a context remote from corporate operations. Weber concludes that the nature of the reasoning employed by the corporate managers reflects the influence of organizational loyalty and bureaucratic structures. Managers also may perceive themselves as vulnerable to the expectations of employees, customers, shareholders, and the public. Accordingly, when operating within a business context, their moral reasoning may reflect a heightened emphasis on the defensibility of their actions in terms of laws, regulations, norms, and other conventional standards, against which their actions are evaluated.

Sparks and Durkin (1987) have provided further evidence of the context sensitivity of expressions of moral judgment. In a study involving political liberals and conservatives, they found that preference for principled moral criteria varied according to the compatibility of the criteria with their opinion on specific issues.

Perhaps the most dramatic example of ideological commitments affecting expressions of moral judgment is developed in a study by Lawrence (1987). The Defining Issues Test was administered to three groups of subjects: High school 9th graders, philosophy graduate students, and conservative fundamentalist seminarians. Philosophy graduate students scored highly, high school students exhibited low scores for principled judgment, and seminarians exhibited the lowest scores. Subsequently, subjects were reevaluated by means of an intrusive interview centered around specific issues drawn from the Defining Issues Test. Lawrence determined that the conservative seminarians had responded to the DIT in terms of their religious beliefs, rejecting both principled and unprincipled items and infusing their ratings with religious meanings. Consequently, their comprehension of principled issues, as expressed during the follow-up procedure, was actually much higher than indicated by the DIT score. Religious ideology appears to have been so salient for this group, that it was elevated in their expressions of moral judgment and displaced expression, via the DIT, of an existing capacity for principled judgment.

The significance of this vein of research to the study at hand is that it suggests an alternative and less insidious interpretation to the observation that higher ranking accountants exhibit a preference for conventional reasoning. Individuals who, as a matter of professional survival, must consistently think of the defensibility of their actions as

regards professional standards, codified professional ethics, the law, and the expectations of clients and society as a whole, may very likely profess a high regard for conventional reasoning, notwithstanding any developed capacity for post-conventional judgment. This interpretation is entirely consistent with the observation that DIT scores are lower for proprietors and owners, those whose signature goes on the work product, than for lower level employees, who are considerably more insulated from the threat of litigation.

Professional survival is not the only impetus for professional accountants to exhibit a preference for conventional reasoning. Responsible individuals involved in a profession in which moral issues are pervasive might exhibit a preference for conventional reasoning for postconventional reasons. An accounting profession staffed by moral free-agents, relying on personal philosophies that are as varied as are individual world views and that are as variously limited in reach as are individual perceptual capacities, is a frightening prospect. Accordingly, a principled individual may rely, as a practical matter, on a conventional code of ethics where that code is believed to have the strength of the collective conceptual capacities of many individuals, as opposed to the more limited capacities of one. This is a post-conventional reason for adhering to a conventional code of ethics. Such a self-imposed prescription does not reflect a fear of reliance on one's own world view as a principled moral philosopher. It reflects a fear of others' relying on theirs, but the principled moral philosopher is caught in the net of his or her own prescription. Moreover, if the value of the profession's work product is enhanced by the "appearance" of propriety, and if propriety is measured in terms of broadly accepted social norms, then there is further justification for a deep concern for social norms.

Moral Reasoning and Political Ideology

It is also possible that conservative political ideology, which one might expect to be prevalent in a profession nested squarely in capitalist theory, would be increasingly prevalent over the course of career development. A well-documented correlation exists between conservative political ideology and conventional moral reasoning, and between liberal ideology and principled reasoning (Alker and Poppen, 1973; Candee, 1976; Lind et al., 1982; Nassi and Abramowitz, 1979; Rest, 1979). The orthodox interpretation of the relationship is that ideological "content" of thought is affected by stage or "structure" of thought. In other words, morally mature people tend to favor liberal political ideology. A number of studies, including Emler et al. (1983) and Markoulis (1989), demonstrate that the orthodox interpretation may not be correct. In the Emler and Markoulis studies, subjects demonstrated the ability to alter DIT scores significantly by complying with instructions to respond to the DIT from a particular ideological perspective. Base lines were established by administering the DIT to individuals whose political orientation was known. Consistent with prior research, lower P scores, lower levels of "postconventional" thinking, were exhibited by politically conservative subjects, and higher P scores were exhibited by the more liberal subjects. Subsequently, subjects were instructed to respond as would members of a different political camp. The pattern of P scores was reversed. In Emler et al., politically conservative subjects who were instructed to respond from the perspective of a "radical," increased their P scores to the level exhibited by the liberal subjects. Liberals, who were instructed to respond as would a conservative, substantially reduced their P scores. As Emler et al. explain:

The cognitive-developmental perspective would allow that left-wingers could reproduce the responses of a conservative if the latter does reason at a lower developmental stage, but it should exclude the converse; right-wingers should not be able to reproduce the developmentally more advanced reasoning supposedly characteristic of radicals. On the other hand, if the conventional-principled distinction is not developmental but a difference in ideological content, then left- and right-wingers would be able to predict one another's responses with equal ease (Emler et al. 1983, p. 1076).

Emler et al.'s results support the latter interpretation. Higher P scores appear to be within the capacity of conservatives and liberals alike.

Emler et al.'s study has been criticized on grounds that the conservative subjects were not responding with comprehension when they responded as radicals (Thorton and Thorton, 1983). Barnett (Barnett, 1985; Barnett et al., 1995) substantially duplicated Emler's procedure but modified the DIT to include more "A" (anti-establishment) type items than are ordinarily present. Subjects completed the modified test in accordance with standard instructions and then from the perspective of a "radical." Barnett found that under the expanded "A" item condition, both conservative and liberal subjects increased their A score when responding as radicals, and, in fact, their P scores declined. Barnett concludes that the role taking liberals in Emler et al. did not select "P" items as such. Rather, when asked to respond as radicals, subjects sought out "radical" sounding items and selected "P" items as surrogates for "A" items when the available "A" items were exhausted. Consequently, Barnett argues, the elevated P scores of conservatives in the Emler study do not constitute evidence that subjects comprehended the moral significance of the "P" items and the scores do not provide evidence that Emler's conservatives had successfully mimicked the principled reasoning of their politically liberal counterparts.

In his own study, Markoulis examined the Barnett thesis and corrected a number of other deficiencies in the Emler et al.'s study. At the time of his study, and in the country in which it was conducted, the liberal party was in power. Under such a circumstance, the anti-establishment political orientation is the opposite of that in the country in which Emler et al.'s conducted their study. Markoulis found no material effect in the number of "A" items endorsed by his subjects, and generated results that confirmed Emler et al.'s thesis.

Both the design of the Barnett study and the conclusions are subject to criticism. First, the political sense of the word "radical" is that of an irresponsible anti-establishment extreme. When Barnett asked his subjects to respond as an irresponsible person would respond, they did so. Both liberal and conservative subjects responded from an anti-establishment extreme on the DIT when asked to respond from an anti-establishment extreme on the DIT. We are left to wonder, in the absence of any evidence, what the effects would have been had the conservatives been asked to respond from the perspective of a liberal, as opposed to responding from an anti-establishment extreme.

Second, Barnett's own data clearly show that when liberal subjects followed standard instructions in completing the DIT, as modified to include additional "A" items, they too exhibited substantially elevated A scores. In other words, when expressing their preference in defining the issues involved in the various dilemmas that comprise the DIT, liberal subjects chose more anti-establishment items when more anti-establishment items were included on the test. Extending Barnett's reasoning regarding elevated A scores, we have no choice but to conclude that under normal test-taking conditions, political liberals

exhibit elevated P scores as a consequence of choosing "P" items as surrogates for normally scarce "A" items. Under normal test-taking conditions, their P scores will be elevated as a consequence of an anti-establishment orientation.

Lastly, Barnett commits an error in generalizing his results. He aggregates responses for each group of subjects on the basis of the implicit hypothesis that what is relevantly true of the population is relevantly true of every member. One is left to wonder if any part of the population of conservatives might have improved their P score without elevating their A score. When comparing the moral reasoning of groups that happen to differ in their political orientations, we are left to wonder if the P score of some part of the more conservative group(s) might be biased low as a consequence of the ideological content of the reasoning of only a few members of the group(s).

Other related studies should be mentioned. McGeorge (1975) conducted a study in which subjects were instructed to respond first from their own perspective, and then from an alternative perspective. In other words, to "fake good." Subjects did not improve their DIT scores when responding from the alternative perspective. This result, which runs contrary to the role taking results achieved by Emler and Markoulis, has been cited as evidence that DIT scores are not subject to being "faked." Clearly, however, the validity of McGeorge's study is contingent on the ability of subjects to understand the instruction to "fake good," which requires of them an acceptance that their own perspective was not "good" in the first place. In another study, Yussen (1976) instructed subjects to respond to the DIT first from their own perspective, and then from the perspectives of a policeman and a philosopher, respectively. Yussen found that P scores

were lower for the policeman perspective and higher for the philosopher perspective. This generally supports the role taking results of the Emler et al. and Markoulis studies.

In studies conducted by Ponemon (1988, 1990, 1992a, 1993) accountants occupying the positions of manager and partner exhibit low levels of ethical reasoning. Argued to be at work is a socialization process in which individuals who are reasoning at higher levels of moral cognition are selected out by those individuals who make up the established professional culture. As a consequence, Ponemon reasons, the accounting profession is dominated by individuals that exhibit lower (inferior) stage levels of moral judgment; lower levels of moral behavior.

Ponemon's results, quite possibly, are an artifact of an inability of the DIT to differentiate between political ideology and reasoning structure. Studies pertaining to the relationship between moral judgment and political ideology cast doubt on Ponemon's interpretation of his findings. What is characterized as a socialization process that systematically selects out individuals on the basis of moral stage (individuals are self-selected out of the profession and are selected out by higher-ups in the promotion process) may, in fact, be a process that selects out individuals on the basis of the content of their reasoning, content as is consistent with the environment in which professional accounting is practiced. Ponemon's conclusion is not that accountants simply exhibit atypically conservative political ideologies and that such ideologies are cultivated in professional ranks. His conclusion is that accountants are comparatively inferior in moral reasoning capacity. The Emler et al. and Markoulis studies provide suggestive reasons for reexamining Ponemon's hypothesis. In a profession in which free-market political

ideology is subsumed in the very logic of professional practice, it ought not to be surprising to find the following: (1) that accountants favor conservative political ideology, and (2) that over the course of professional development, the population of accountants in public practice exhibits a diminishing prevalence for leftist thought. The Emler et al. and Markoulis studies would predict Ponemon's results on purely normative content grounds, as opposed to structural (moral maturity) grounds. Thus, given the absence of any empirical scale by which to assess the value of moral ideologies that differ on the basis of normative content, it simply cannot be concluded, in a scientific arena, that the ethical reasoning of accountants is comparatively inferior.

Age Trends in Conservatism

Through cross-sectional studies, considerable evidence has been developed in support of the conventional wisdom that conservatism increases with age. Wilson and Patterson (1968), in a study of subjects in New Zealand, found a very dramatic increase in conservatism in the fifth decade of life. Eysenck (1971), in a study of ideological differences between social classes, found substantially higher levels of conservatism in older groups, when class differences are discarded. Glamser (1974) found a significant positive correlation between age and conservative opinions, controlling for the effects of education, the father's socioeconomic status, and the size of each respondent's childhood community. Of the variables studied, only education was more important than age as a correlate of conservatism. Feather (1978), in a study of within-family differences and commonalities in ideology, found parents to be more conservative than their children. Ray

(1985), in a study of 18 international groups, found that age was a reliable predictor of conservatism. Truett (1993), in the most comprehensive study on the point, has provided evidence that age differences in conservatism appear to be a consequence of consistent and continuous change across all ages, and not a consequence of discrete differences between age groups, or of an event associated with any specific age group.

Two hypotheses advanced as possible explanations for the age trend in conservatism are listed: (1) Zeitgeist effects, and (2) biological and psychological changes that are sociologically and/or developmentally rooted. Zeitgeist effects are social and historical circumstances that may define a generation, such as war (World War II for example), economic depression (such as that of the early 1930s), or major technological events (such as development of the Internet). The Zeitgeist effect hypothesis would predict an increase in conservatism for people in their fifties and older as a conservative generation ages, and then a decline in conservatism for that age group, as a liberal generation supplants the former occupants. In the Truett study the point is made that, contrary to what the Zeitgeist hypothesis predicts, conservatism is elevated in older populations in studies conducted decades apart, a fact that lends substantial support to the second hypothesis. Truett concludes:

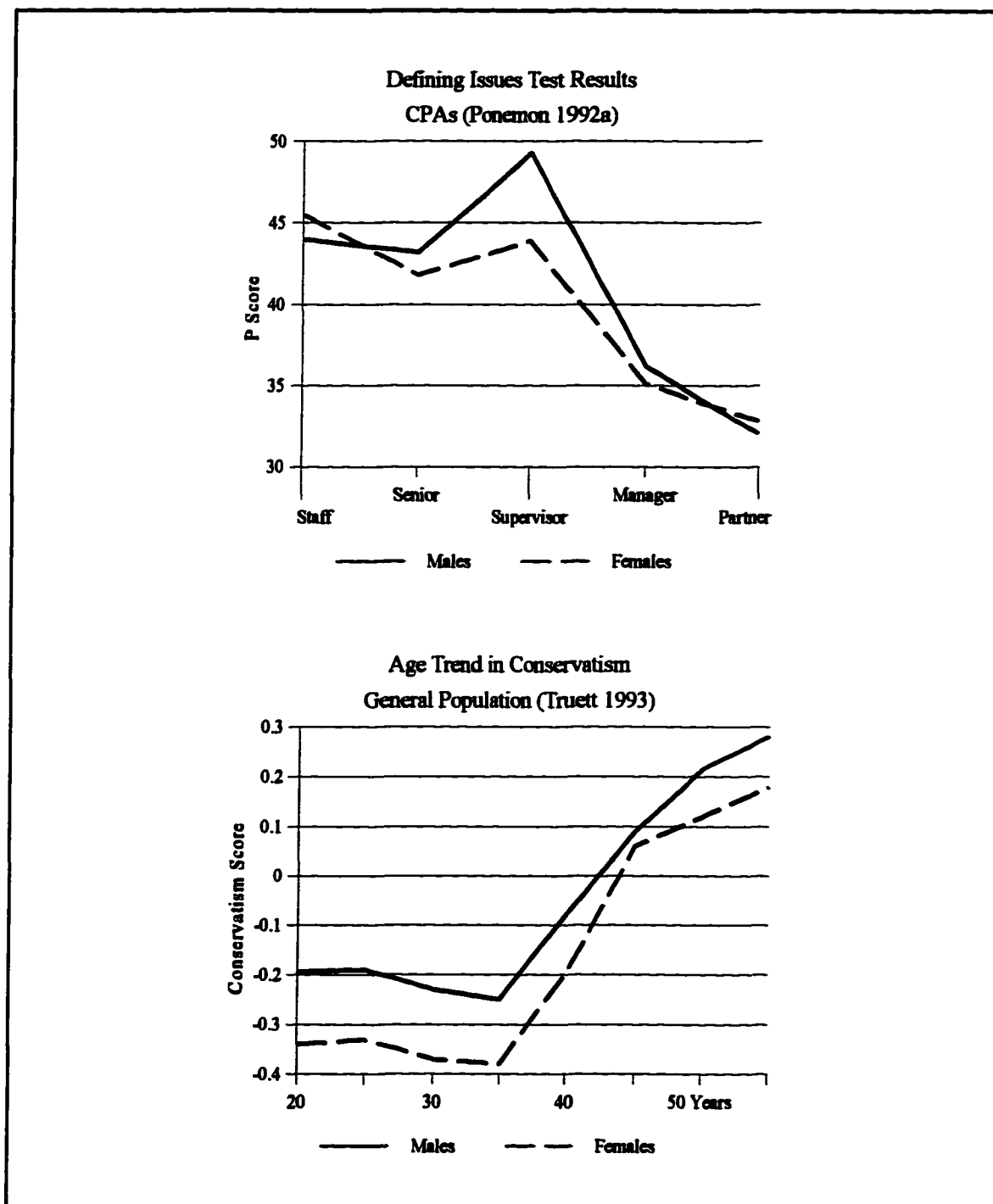
Although a matter of speculation, it is entirely plausible that the increase in conservatism, along with other physiological and behavioral changes are the consequence of age dependent selection and the transition from the period of active reproduction into a pre-senescent period. It is not difficult to see the advantages of more conservative social attitudes for the survival of the aging individual. (Truett, 1993, p. 411)

Given the correlation between conservatism and age found by Truett and others, and the relationship between conservatism and DIT P scores found by Emler and Markolis, it seems quite plausible that the decline in P scores across ranks in Ponemon's population of CPAs, is a consequence of an underlying age trend in conservative ideology, and not a consequence of promotional discrimination against morally competent people. Simple comparison of Truett's data and Ponemon's data, as appear in Table 3.1, is sufficient to add considerable substance to the logic of this hypothesis. Previous findings that the moral judgment of professional accountants regresses over the course of professional development may actually reflect socialization with respect to the political-ideological content of reasoning and not the maturity of reasoning structure. Thus,

Hypothesis 1: The political ideology of CPAs is increasingly conservative as one moves up the professional hierarchy. Depressed P scores follow from expression of this conservative ideology and do not reflect a diminished capacity for moral judgment.

Hypothesis 2: When asked to respond to the DIT from the political perspective of a liberal, conservative subjects will materially increase their DIT P scores. When asked to respond from the perspective of a conservative, self identified liberals will materially depress their DIT P scores.

TABLE 3.1
COMPARISON OF AGE TRENDS: PONEMON 1992a AND TRUETT 1993



Methodological Issues

There are characteristics of the sample described in Ponemon's original study that do not reconcile with the population from which the sample was drawn. The presumption is that the population sampled consists of CPAs in public practice whose names were drawn from the 1987/1988 membership roster of the AICPA. Ponemon describes the sample first in the dissertation and second -- in an article in which the results of the dissertation are reported:

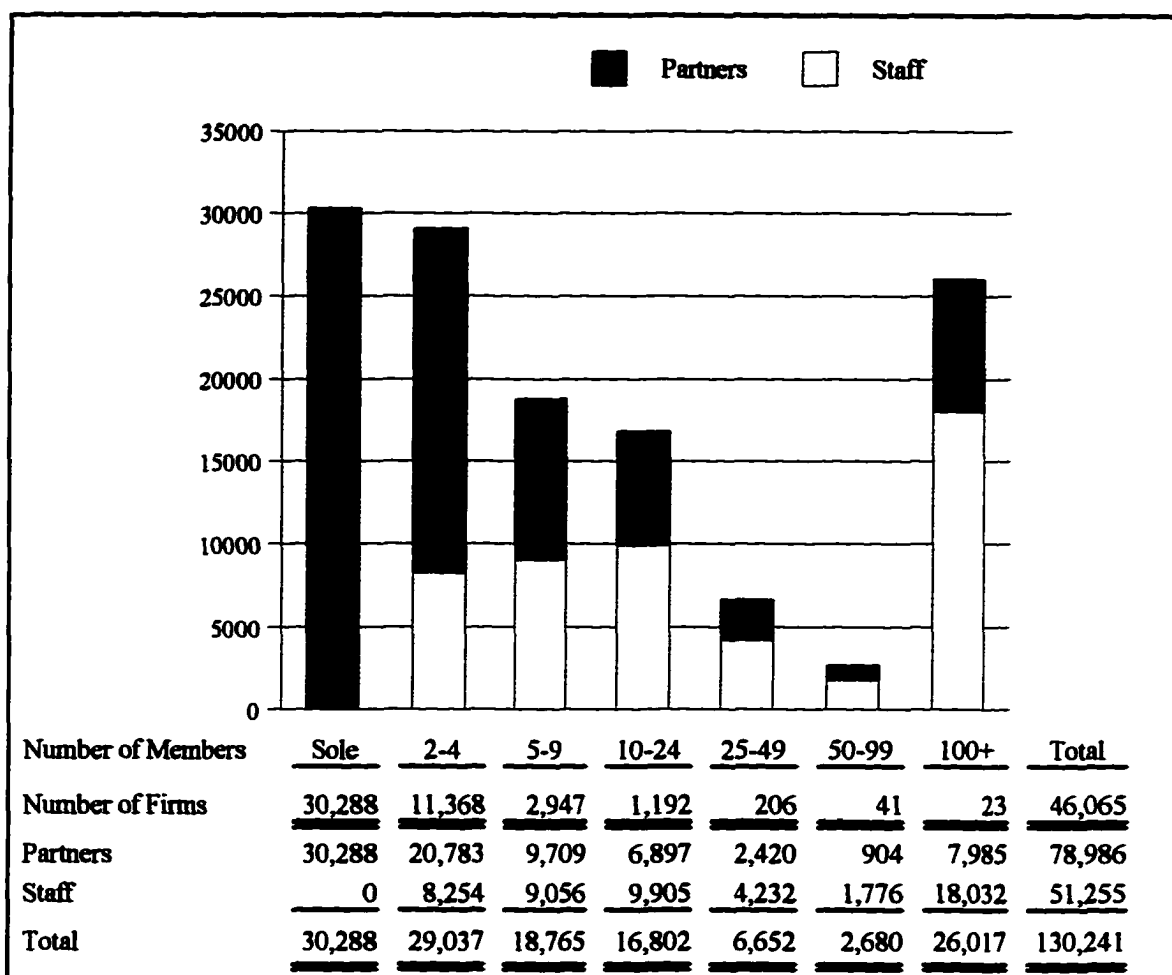
A simple random sample of CPA practitioners was selected from the AICPA's computerized membership roster, with the assistance of the Institute's promotion department. Since this data was generated randomly, the results of this mailing could be interpreted using large scale statistical methods and procedures. (Ponemon, 1988, p. 163)

CPAs were selected at random from the AICPA computerized membership list with the cooperation of the Institute. The population of members was first stratified such that only those in public accounting practice could be sampled. (Ponemon, 1992a, p. 246)

As of July 31, 1994, members of the AICPA in public practice consisted of "partners" and firm staff in the numbers shown in Table 3.2. Comparable detail for the 1987/1988 population was not archived by the AICPA. At the request of the Membership Division, the Institute's Programming and Systems department reconstructed sufficient records to report a materially comparable profile for the 1988 membership. In addition, summary statistics as appear in Table 3.3 which are maintained by the Institute exhibit no material change between 1988 and 1994 in the distribution of the population by firm size. (The discrepancy of 1,389 between the 1994 totals that appear on Tables 3.2 and 3.3 is not accounted for by the Institute, but the discrepancy is not material).

TABLE 3.2

**AICPA MEMBERSHIP IN PUBLIC PRACTICE
MEMBERSHIP STRUCTURE BY FIRM SIZE**



Source AICPA correspondence (FAX) dated July 20, 1995

From Table 3.2, it appears that a random sample drawn from the population of AICPA members in public practice should yield a sample in which perhaps a quarter of the people are with the largest few firms (firms defined in the Ponemon study as "Big Eight" and "Other National" firms). In a random sample of 650 people (as was drawn in the Ponemon study, 1988, p. 165), $25\% \times 650 = 162$ would represent "Big Eight" and "Other

National” firms. However, the actual sample analyzed in Ponemon’s study includes 112 responses from “Big Eight” and “Other National” firms. These 112 responses would represent a $112 \div 162 = 69.1\%$ response rate.

TABLE 3.3

**AICPA MEMBERSHIP IN PUBLIC PRACTICE
MEMBERSHIP STRUCTURE BY FIRM SIZE
1988 THROUGH 1994**

	1988	1989	1990	1991	1992	1993	1994
Membership in public practice	126,771	131,014	131,575	130,078	131,306	132,821	131,630
Firms with one member	24.80%	23.60%	23.60%	24.10%	23.60%	23.20%	23.50%
Firms with two to nine members	33.60%	34.00%	33.70%	35.20%	35.50%	35.80%	36.50%
Firms with 10 or more members, except the 25 largest firms	16.40%	17.30%	18.10%	18.80%	19.80%	20.00%	19.90%
The 25 largest firms	25.20%	25.10%	24.60%	21.90%	21.10%	21.00%	20.10%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

AICPA <http://www.aicpa.org:80/index.htm>, 1996
[Member Matters] [AICPA Membership Breakdown]

Moreover, visual examination of Table 3.2 is sufficient to conclude that a random selection of AICPA members in public practice will almost certainly result in a sample in which larger firms are more represented among staff level employees, and in which smaller firms are more represented among “partners.” Any measurable difference in moral competence between large firm staff and small firm partners may be a consequence of differences in the level of competence required of the type of practice in which large firms

engage as compared to small firms, and not a consequence of promotional practices that discriminate against individuals with higher levels of moral capacity. Accordingly, it is necessary to control for firm size in order to distinguish between differences in DIT scores due to professional rank and differences in DIT scores attributable to firm size.

Data and procedures to control for firm size do appear in the Ponemon study, but they do not appear to be consistent with demographics of the population. The firm size categories used are apparent in the following excerpt from the questionnaire:

TABLE 3.4
EXCERPT FROM PONEMON 1988

1. Please check the category which best describes the size of your firm (in terms of professional staff employed.)

Big 8 Firm: _____ Other National Firm: _____ Regional Firm: _____
Large Local Firm (over 50 professionals): _____ Small Local Firm: _____

Ponemon, 1988, p. 276

No additional information is provided to refine the definitions; and as they are, they are ambiguous. Most firms with multiple offices in a single geographic region have less than 50 professionals. Many firms with multiple offices consider themselves to be local firms. The majority of CPAs in public practice work for "local firms," and extremely few local firms have more than 50 professionals. Most CPAs in public practice fit, simultaneously, more than one of these categories. Thus, firm size categories are ambiguous, and we have no reason to believe that respondents interpreted firm size

categories in a consistent manner. Ambiguity of size categories provides an equivalently ambiguous statistical control for firm size. Consequently, the research needs to be retraced with effective statistical controls for firm size.

Furthermore, on July 31, 1994 (see Table 3.2), 101,544 ($30,288 + 29,037 + 18,765 + 16,082 + 6,652$) out of 130,241 or 78.0% of AICPA members in public practice were in firms with fewer than 50 AICPA members. Seventy eight percent of the population fits into one of the five categories, and 22.0% fits into the remaining four.

Of course, the number of professional staff in a firm is not the same as the number of AICPA members. To develop a reasonable estimate of the extent of agreement, the sampling procedure employed herein (discussed later) included 1,000 individuals from each of three firm size categories: 2-9 AICPA members, 10-99 AICPA members, and 100 or more AICPA members. Included among other demographics requested on the survey questionnaire is the information described thus: "Please indicate the number of professionals (all locations) in your firm." Firm size categories on the questionnaire encompass the categories maintained by the AICPA. Records were received as follows: 164 from CPAs who indicated that there were 2-9 professionals in their firm, 237 from firm size category 10-99, and 222 from firm size category 100 or more professionals. We should expect that firm sizes reported by respondents will be larger than sizes based on AICPA members. Size reported should be larger by the amount of professionals in a firm who are not AICPA members. What appears to be a higher rate of response for firms in the 10-99 and 100+ categories, as compared to the 2-9 category, is likely a consequence of this difference in definitions. Nevertheless, firm size categories reported by respondents

are reasonably proportionate to the number of questionnaires distributed to each of the firm size categories as measured using the AICPA's criteria. Thus, the latter number appears to be a materially adequate surrogate for the former.

In the 1992a article, the definition of firm size is more refined. Ponemon provides definitions that do not appear on the questionnaire (Table 3.4), and are more definitive than the categories that do appear on the questionnaire:

Regional firms have multiple offices in a single geographic region. Large local firms have one major office and 50 or more professionals. Small firms have less than 50 professionals. (Ponemon, 1992a, p. 246; note to Table 2)

The most likely explanation for this error is as follows. In Ponemon's dissertation, as a separate part of the overall study, the DIT was administered to a non-random sample of 52 CPA's selected from the Northeast. Individuals exhibiting "attributes deemed important by the researcher" (Ponemon, 1988, p. 145) made up what is a biased sample. This sample is described as follows:

Six of eight "Big Eight" CPA firms are included in this study. Other national firms included those with practice offices in several large cities across the nation. Regional firms are those with multiple offices in a single geographic region or area. Large local firms are those with one primary office and a professional staff of at least fifty, while small local firms have a staff of less than fifty professionals (Ponemon, 1988, p. 151).

As reported in the 1992a article, the random sample of 180 CPA practitioners is described in the full text of the caption cited on the previous page as follows:

Six of the Big Eight firms (prior to mergers) are included. Other national firms include those with practice offices in several major cities throughout the United States. Regional firms have multiple offices in a single geographic region. Large local firms have one major office and 50 or more professionals. Small firms have less than 50 professionals. (Ponemon, 1992a, p.246)

It appears that the systematically biased sample of 52 CPA practitioners from the "Northeast," who were selected on the basis of "attributes deemed important by the researcher," must have been mistakenly associated with the randomly derived national sample of 180 practitioners. Given these methodological problems and the significance of Ponemon's conclusions, it becomes important to re-examine his results. Thus:

Hypothesis 3: The selection process by which accountants are promoted to the rank of manager and then to partnership is not one which discriminates against people who have a more developed capacity for moral reasoning as measured with the Defining Issues Test.

To provide an interpretive contrast, this same hypothesis is examined for a cross section of attorneys. A parallel analysis of a cross section of legal firms provides a basis for concluding that any trend common to both types of professional organizations may be attributable to factors that bear on each, whereas any discrepancy in trends would relate to factors that bear differently on each.

Misspecification of Target Population

The population sampled by Ponemon appears to be misspecified, and, as a consequence, a material part of the data collected may not be relevant. Of the 78,986 “partners” in the AICPA, 30,288 are sole proprietors. Sole proprietors are not those who occupy the highest levels in accounting “firms.” On the contrary, some of those who leave firms either by their own choosing, or by force of retention and promotion processes, certainly comprise much of the population of those who set out on their own. Thus, a study of sole proprietors will not provide information about the characteristics of those who are promoted within firms, or of the process by which they are promoted. On the contrary, such a study is likely to provide information about those who are not promoted in accounting firms. Low P scores for sole proprietors do not support the conclusion that people with low P scores are retained and promoted as a consequence of “selection socialization.” On the contrary, low P scores for sole proprietors are consistent with the conclusion that people with low P scores are not retained and promoted. To the extent that the population of “partners” makes up the sample analyzed in the 1988 study, the data are consistent with a conclusion that is precisely opposite to the one reached.

Furthermore, firms with four or fewer members will likely not have the organizational structure or the “up or out” promotional environment necessary for operation of the “selection socialization” hypothesis. Thus, of the 78,986 “partners” in the AICPA, 51,071 (30,288 sole practitioners and 20,783 partners with firms with 2 to 4 members) or 64.7% do not operate in an environment in which the “selection socialization” hypothesis is likely to operate, and logically they cannot provide data in

support of the hypothesis. Thus, a large part of the population of “partners” may not be relevant to the selection-socialization hypothesis. Ponemon’s results may lend themselves to a conclusion that is opposite to the one reached.

Hypothesis 4: The mean DIT P score for sole proprietors is lower than the mean DIT P score for partners in accounting firms.

Potential for Geographic Bias

There is a potential for geographic bias in Ponemon’s data. Refer to Tables 3.5 and 3.6. Representation of CPAs from the Northeast is disproportionately high. The Northeast represents 53.7% of the sample but accounts for 22.9% of the population. Representation of the Midwest and West is contingently low. Ponemon does not define the regions into which records were classified and differences in the composition of regions (regions as defined by Ponemon as compared to regions as defined by the U.S. Census Bureau) might account for some of the incongruity. But more than half of the country would have to be classified as the “Northeast” to account for it all. At issue is the generalizability of results to a national population. A composite of studies, reported by Rest (1979), shows that moral cognition tends to be less developed for people in the South, as compared to people who live elsewhere in the United States. Rest attributes the difference, in part, to a conservative intellectual milieu in which people are not “encouraged to examine their views” as “thoroughly and systematically” as are people in other regions (Rest, 1979, p.115 - 116).

TABLE 3.5
DISTRIBUTION OF AICPA MEMBERSHIP BY GEOGRAPHIC REGION

Northeast (includes Mid-Atlantic states)	Midwest	South (includes Southwestern states)	West
CT, MA, ME, NH, NJ, NY, PA, RI, VT,	IL, IN, MI, OH, WI, IA, KS, MO, MN, ND, NE, SD	AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV	AZ, AK, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
22.9%	23.5%	34.5%	19.1%
Regions are as defined by the United States Bureau of the Census (1990). Members residing in U.S. possessions and foreign countries are excluded.			

AICPA <http://www.aicpa.org/index.htm>, 1996
[Member Matters] [AICPA Members by Location]

TABLE 3.6
DISTRIBUTION OF PONEMON'S RECORDS BY GEOGRAPHIC REGION

Northeast and Mid-Atlantic	Midwest	South and Southwest	West
53.7% ¹	10.4% ²	30.5% ³	5.1% ⁴
Regions are as denoted by in Ponemon, 1988, p. 167			
¹ = (68+27) = 95; 95 ÷ 177 = 53.7%		² = 19 ÷ 177 = 10.4%	
³ = (36+18) = 54; 54 ÷ 177 = 30.5%		⁴ = 9 ÷ 177 = 5.1%	
177 = 180 total responses - 3 responses from possessions and foreign countries			

Ponemon, 1988, p. 167

In a sample of 650 members, 148 should be from the Northeast (as the Northeast is defined by the United States Bureau of the Census). Of Ponemon's sample, 53.7% represent the Northeast, but the Northeast constitutes only 22.9% of the population. Ponemon's 95 responses from that region constitute a $(68+27) \div 148 = 64.2\%$ response

rate. Disproportionate representation of any region would not be relevant if the culture were homogeneous in relevant respects. Thus, to test the potential effects of certain regions being more highly represented than others, it follows:

Hypothesis 5: The mean DIT P scores for CPA practitioners in different regions of the country, defined as the Northeast, Midwest, South, and West are not equal.

If this hypothesis is supported by the data, we might be concerned that the processes assumed to be at work in one area are not necessarily the same as those at work in another.

CHAPTER IV

METHODOLOGY

The following is a description of the data collection procedure, and analytical methodologies used to test hypotheses stated in the previous chapter. First is a description of the sampling methodology, second is a description of the survey questionnaire, and third is a discussion of the statistical methods to be employed.

Sampling Methodology

A sample of 5,000 CPAs from the membership of the AICPA was drawn, along with a parallel sample of 1,000 attorneys from the *Martindale-Hubbell Law Directory* (1994). CPAs were drawn at random from the AICPA's file of members in public practice and stratified as exhibited in Table 4.1. A sample of 1,000 sole proprietors was drawn. A cross section of CPAs in public practice at all levels of rank (staff, senior, supervisor, manager, and partner) was sampled, with 1,000 drawn from each of the three firm size categories maintained by the AICPA: firms with 2-9 AICPA members, firms with 10-29 AICPA members, and firms with 100+ AICPA members. The effect of stratification is to increase the level of representation of larger firms in the final sample, since larger firms have sufficient organizational structure and turnover for the operation of the ethical selection process. An additional sample of 1,000 partners, 500 each from firms with 10-

29 AICPA members, and firms with 100+ AICPA members, was deemed necessary.

These individuals represent a small part of the population as a whole but are critically important to the subject of this study.

Large sample sizes are necessary for three reasons: first, because of the variance associated with one of the instruments that make up the questionnaire; second, because of the necessity to subdivide the population for purposes of testing certain hypotheses; and third, because of the relatively low response rate anticipated, given the length and complexity of the questionnaire.

TABLE 4.1
PROFILE OF SAMPLING STRATEGY

Description of Population	Firm Size				Total
	Sole	2-9	10-99	100+	
N of Firms	30,288	14,315	1,439	23	46,065
Partners	30,288	30,492	10,221	7,985	78,986
Other Professionals	0	17,310	15,913	18,032	51,255
Total	30,288	47,802	26,134	26,017	130,241
Sampling Strategy					
Cross Section of Professionals		1,000	1,000	1,000	3,000
Partners			500	500	1,000
Sole Proprietors	1,000				1,000
Total					5,000

TABLE 4.2
COMPOSITION OF QUESTIONNAIRES

	Part 1	Part 2	Part 3	Part 4	
	Demographics	Political Scale	Defining Issues Test (3 dilemma)	Defining Issues Test (3 dilemma: alternate instructions)	Defining Issues Test (balance of 6 dilemma test)
Questionnaire ACC ₁	X	X	X	L→C C→L	
Questionnaire ACC ₂	X	X	X	Source of Pressure	
Questionnaire ACC ₃	X	X	X		
Questionnaire ACC _p	X	X	X	L→C C→L	
Questionnaire ACC _s	X	X	X		X
Questionnaire LAW ₀	X	X	X	L→C C→L	

Survey Questionnaire

The survey questionnaire (Appendix B) consists of the following: (1) a demographics section (appropriately modified for the questionnaire to be distributed to attorneys), (2) the Collins-Hayes Short-Form Conservatism Scale (Collins and Hayes,

1993), (3) the short form (three dilemma) Defining Issues Test, and (4) a fourth section that varies in content as necessitated by the specific hypothesis being tested. In total, there are six questionnaires differentiated as indicated in Table 4.2.

All of the following are exhibited in Appendix B. Demographic information includes: political orientation, area of practice, firm size, professional rank, years in profession, age, and gender. For accountants, categories of professional rank that appear on the questionnaire are staff, senior, supervisor, manager, and partner or shareholder. For attorneys, the categories are staff, council, associate, and partner or shareholder. In both cases, accountants and attorneys, the organizational structure of firms, and the use and meaning of rank titles, is reasonably consistent throughout the respective professions. Some ambiguity in these classifications, and some inconsistency from firm to firm as to the nature of responsibilities associated with the title, is certain to exist. Nevertheless, rank order is not ambiguous. Consequently, any methodological restriction presented to the analysis of factors affecting changes in rank should be very minimal.

Note that ACC_1 , ACC_p , and LAW_0 are identical, except that in LAW_0 certain demographics questions (area of practice for instance) are modified to be appropriate for attorneys. ACC_1 , and ACC_p are distinguished only in terms of being distributed to different populations: ACC_1 going to a cross section of professionals in public accounting, and ACC_p going to partners.

Firm size categories for accountants and attorneys are the following: 1 to 9 professional staff members, 10 to 24, 25 to 99, 100 to 249, and 250 or more. Practice areas for accountants consist of audit, tax, management advisory services, and "other."

For attorneys the categories are civil-plaintiff, civil-defendant, criminal-prosecution, criminal-defense, business, transactional, fiduciary/tax, international, and "other."

Categories for self reported political ideology are conservative, liberal, and "other." Open cells are provided in which the subjects were asked to report their age, gender, and the number of years they had been in the profession.

The Collins-Hayes Short-Form Conservatism Scale (1993), which is a refinement of the widely used Wilson-Patterson Conservatism Scale (1968), consists of a 16-item summated scale utilizing a five-point Likert format. People are asked to rate the extent of their agreement, or disagreement, with each item. Scale items were selected on the grounds of their discriminatory power with respect to known groups of conservatives and liberals. A general conservatism factor is constructed of component factors, which are composed of the items described in Table 4.3. Component factors are: militarism, which consists of items 8 and 10; anti-hedonism, which consists of items 2, 4 and 5; anti-domination (intolerance of discriminatory social conventions) which consists of items 3, 13 and 16; religious fundamentalism, which consists of items 6, 12, 14 and 15; and anti-art (intolerance of alternative lifestyles), which consists of items 1, 7, 9 and 11.

The third part of the questionnaire consists of the three-dilemma Defining Issues Test. Use of the three-dilemma DIT, as opposed to the six-dilemma version, is necessitated by the overall length and complexity of the questionnaire. Variance is greater with the three-dilemma DIT, however, no bias of any kind has been associated with the three-dilemma version (Rest, 1986).

TABLE 4.3
ITEMS COMPRISING THE COLLINS-HAYES CONSERVATISM SCALE

Item	Direction of Conservative Response	Item	Direction of Conservative Response
X ₁ . Flag burning	Disagree	X ₉ . Heavy metal music	Disagree
X ₂ . Chastity	Agree	X ₁₀ . ROTC	Agree
X ₃ . Legalized abortion	Disagree	X ₁₁ . Strip shows	Disagree
X ₄ . Premarital	Agree	X ₁₂ . Evolutionary theory	Disagree
X ₅ . Casual sex	Disagree	X ₁₃ . Female clergy	Disagree
X ₆ . Church authority	Agree	X ₁₄ . Fundamental	Agree
X ₇ . Punk rockers	Disagree	X ₁₅ . Bible truth	Agree
X ₈ . Patriotism	Agree	X ₁₆ . Divorce	Disagree

The fourth part of each questionnaire varies as necessitated by the several hypotheses being tested. For questionnaires ACC₁, ACC₂, ACC_p, and LAW₀ the fourth part consists of the three-dilemma DIT with non-standard instructions. Subjects are asked to respond from a particular perspective. Instructions for Part 4 of questionnaires ACC₁, ACC_p, and LAW₀, ask people to respond to the DIT from a political perspective different from their own. The following are the instructions as they appear on the questionnaires:

Please refer to the question under "PART 1: GENERAL AND DEMOGRAPHIC" that pertains to political orientation. If you indicated that you are a political conservative or "other," please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of a liberal**. In other words, weight the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think a liberal would assign; and rank as the four most important issues the issues you think a liberal would choose. Items that a liberal would consider unimportant and items that are simply gibberish (such as the statement "Whether the front connibilies were differential."); both should be marked "No Importance."

If you indicated that you are a political liberal, please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of a conservative**. In other words, rate the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think a conservative would assign; and rank as the four most important issues the issues you think a conservative would choose. To repeat the note above, items unimportant to a conservative and items that are simply gibberish both should be marked "No Importance."

In the fourth section of ACC₂, subjects are asked to respond from the perspective of that person who constitutes the principal a negative moral force in their environment. People are asked to identify the person as either: a subordinate, peer, immediate supervisor, client, family member, member of society, or as an AICPA official. Data from Part 4 of ACC₂ are intended to provide a contrast for interpreting data from questionnaires ACC₁, ACC_p, and LAW₀. The data are also collected as a basis for examining a hypothesis that is not part of the dissertation study. Instructions for Part 4 of ACC₂ read:

Please refer to the question under "PART 1: GENERAL AND DEMOGRAPHIC" which asks you to identify the person that is the greatest source of pressure to act against your own moral judgment. Please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of that person**. In other words, weight the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think the person would assign; and rank as the four most important issues the issues you think the person would choose. Items which the person would consider unimportant and items that are simply gibberish (such as the statement "Whether the front connibilies were differential."); both should be marked "No Importance."

The fourth part of ACC₃ consists of the Multidimensional Scale developed by Reidenbach and Robin (1990). Data from this part pertain to a hypothesis that is not within the scope of the present study. The balance of the six-dilemma Defining Issues Test

is included as the fourth part of ACC_S. For these questionnaires, data for all six dilemmas are compared to data for the three dilemmas that make up the short form of the DIT as a basis for providing assurance, in addition to that already in the literature, that there is no measurable bias introduced with the use of the three-dilemma test.

The cross section sample of 3,000 professionals (staff, seniors, supervisors, managers, and partners) was divided into three groups. Each record was assigned a computer-generated random number, and the entire sample was sorted by random number. The first 1,000 records were assigned to one group, the second 1,000 assigned to a second group, and the remaining 1,000 records were assigned to a third group. ACC₁ was administered to 1,000 of the cross section sample. ACC₂ was administered to another 1,000 members of the cross section. ACC₃ was administered to the remaining 1,000 members of the cross section. ACC_P (identical in design to ACC₁) was administered to the supplemental sample of firm partners. ACC_S was administered to the sample of sole proprietors. LAW₀ was administered to attorneys.

Tests of Normality and Non-Response Bias

Several preliminary tests are performed. Use of parametric statistics is based on the assumption that dependent variables are normally distributed. Wilkes *W* (Shapiro and Wilke, 1965) was used to test the null hypothesis that dependent variables are from a normally distributed population. Also, procedures are applied comparing responses for early responders with late responders, where late responders are a surrogate for non-responders. An ANOVA comparing means for the three-dilemma DIT and the

six-dilemma DIT, is performed to add assurance that, for the population of accountants in public practice, there are no differences in the make-up of the two tests that would result in differences in means as measured by the two tests.

Tests of Hypotheses

Hypothesis 1: Conservatism

H1: The political ideology of CPAs is increasingly conservative as one moves up the professional hierarchy. Depressed P scores follow from expression of this conservative ideology and do not reflect a diminished capacity for moral judgment.

Data from the third part (three-dilemma DIT) of ACC₁, ACC₂, ACC₃, and ACC_p (representing a cross section of staff, seniors, supervisors, managers and partners, plus a supplemental sample of partners) are used to test this hypothesis. Stated symbolically, and in the null form, the hypothesis is:

$$H1_0: R = \beta_0 + \beta_1 P + \beta_2 C_1 + \beta_3 C_2,$$

where: R = professional rank

P = DIT P score

C₁ = self described political orientation

C₂ = score on the Collins-Hayes scale

Given the relationship between political ideology and performance on the DIT discussed previously, DIT performance that diminishes with increasing rank may be an indirect consequence of discrimination in professional advancement on the basis of ideology or reasoning content, rather than cognitive capacity. Political ideology is operationalized as C_1 , self described political affiliation, and alternatively, as C_2 , score on the Collins-Hayes scale. Capacity for principled moral judgment is operationalized (with objection) as the subject's P score on the Defining Issues Test. Note that multivariate regression, with P , C_1 , and C_2 , as dependent variables, yields the same significance statistics, but the opportunity to examine the relationship between P , C_1 , and C_2 , is lost.

A reverse stepwise regression analysis is employed to determine which variables, if any, relate to position level in firms of CPAs. C_1 and C_2 are alternative measures of the same construct and likely collinearity necessitates elimination of one of the two variables. Subsequently, the test becomes one of whether, given a model where rank " R ," is a function of conservative ideology " C ," does inclusion of P score " P " improve the explanatory power of the model, and given a model where rank " R " is a function of " P ," does inclusion of conservative ideology " C " improve the explanatory power of the model. Data that support rejection of the null hypothesis in favor of the model $R = C$, support the hypothesis that professional advancement is a consequence of ideological content, one's values, as opposed to one's cognitive capacity, the ability to reason with those values.

Hypothesis 2: Role Taking

H2: When asked to respond to the DIT from the political perspective of a liberal, conservative subjects will materially increase their DIT P scores. When asked to respond from the perspective of a conservative, self identified liberals will materially depress their DIT P scores.

Data from Part 3 and Part 4 (DIT scores under normal instructions and DIT scores under the instruction to respond from an opposite political perspective) of ACC₁, ACC_p, and LAW₀ (representing a cross section of staff, seniors, supervisors, managers and partners, plus a supplemental sample of partners, plus attorneys) are used to test this hypothesis. Attorneys are included in order to supplement the sample of political liberals expected to be rare in a sample of accountants. Since this particular hypothesis pertains to characteristics of the Defining Issues Test, the source of the data, accountants or attorneys, is not relevant. Stated symbolically, and in the null form, the hypothesis is

$$H2_0: P_L \leq P_{L \rightarrow C} \text{ and } P_C \geq P_{C \rightarrow L}$$

where: P_L = P score for liberals

$P_{L \rightarrow C}$ = P score - liberal adopting conservative perspective

P_C = P score for conservatives

$P_{C \rightarrow L}$ = P score - conservative adopting liberal perspective

Data for individuals identifying themselves as neither liberal nor conservative are not analyzed. Because ANOVA is not designed for paired comparisons, a paired t test procedure is used to test differences between P scores for conservative subjects responding from their own perspective, and from the perspective of a liberal; for liberal subjects responding from their own perspective, and from the perspective of a conservative. As discussed earlier, Barnett's contention that under the instruction to respond to the DIT from the perspective of a liberal, conservative subjects are able to improve their P score, but only as a consequence of selecting "P" items, after all "A" items on the test are used up. In the present study, rather than modify the DIT as Barnett did to include additional "A" type items, a close analysis of each record is undertaken to discern the actual pattern of responses and to discern the emphasis placed on "A" items by each subject. If conservative subjects, from what is expected to be a highly enlightened population of professional accountants and attorneys, do materially increase their P scores under the condition to respond from the perspective of a liberal, one would have reason to speculate, at the very least, that the DIT is biased by conservative ideology.

Hypothesis 3: P Score

H3: The selection process, by which accountants are promoted to the rank of manager and then to partnership, is one which discriminates against people who have a more developed capacity for moral reasoning as measured with the Defining Issues Test.

H3a: P score for accountants is a function of professional rank, age, experience, gender, and firm size.

H3b: P score for attorneys is a function of professional rank, age, experience, gender, or firm size.

DIT data from questionnaires ACC₁, ACC₂, ACC₃, and ACC_p are used to test

Hypothesis 3a. Data from LAW₀ are used to test 3b. Symbolically, null hypotheses are

$$H3a_0: P_{CPA} = \beta_0 + \beta_1 R + \beta_2 A + \beta_3 E + \beta_4 G + \beta_5 F$$

$$H3b_0: P_{LAW} = \beta_0 + \beta_1 R + \beta_2 A + \beta_3 E + \beta_4 G + \beta_5 F,$$

where: P_{CPA} = DIT P scores for accountants

P_{LAW} = DIT P score for attorneys

R = rank

A = age

E = experience

G = gender

F = firm size

As before, capacity for principled moral judgment is operationalized (with objection) as the subject's P score on the Defining Issues Test. Expected colinearity between the variables, age, experience, and rank is not taken up for reasons apparent in the chapter on results. Gender is included in the model to control for the possibility that any gender differences may influence differences in mean P scores at different levels of professional rank as a consequence of different degrees of representation of men and women in those positions. Firm size is included to control for the possibility that individuals of different professional ranks may be more or less heavily represented in firms

of a particular size. Thus, differences in rank may be traceable to differences in the size of the firms in which those ranks are represented.

An ANOVA for differences between ranks also is performed. Data that support rejection of the hypothesis in the null form in favor of the model $P = R$, where P decreases with rank, clearly support Ponemon's hypothesis. If P increases with rank, or if there is no trend either increasing or decreasing, then Ponemon's hypothesis is not supported, and it would appear that methodological errors quite possibly could have resulted in the failure to reject a hypothesis that should have been rejected.

Hypothesis 4: Sole Proprietors

H4: The mean DIT P score for sole proprietors is lower than mean DIT P score for partners in accounting firms.

Data for Part 3 of ACC_p and ACC_s (DIT scores for partners and sole proprietors) as well as data for partners who responded to ACC_1 , ACC_2 and ACC_3 is used to test this hypothesis. Stated symbolically and in the null form:

$$H4_0: \mu P_s < \mu P_p,$$

where: μP_s = mean P score for sole proprietors

μP_p = mean P score for partners

A *t*-test is used to test the hypothesis. If the null hypothesis is rejected, there is reason to conclude that there are factors influencing the P score of managers and partners that do not similarly influence the P score of sole proprietors. Given the absence of any explanation of the disposition of data pertaining to sole proprietors in the Ponemon study, we must conclude that the data for the two groups were commingled. If partners exhibit a P score materially higher than that of sole proprietors, it would appear that commingling data from the two groups would have generated a false result in the Ponemon study, one contrary to the conclusion that should have been drawn, as stated in the previous chapter. If firm partners exhibit a P score materially lower than that of sole proprietors, the conclusion should be drawn that the data support Ponemon's hypothesis, notwithstanding procedural errors in his study. If firm partners and sole proprietors both exhibit depressed scores on the DIT, then it would appear that factors that bear on both groups are responsible, and not just the promotional practices of accounting firms that are organizationally dynamic and complex.

Hypothesis 5: Geographic Regions

H5: The mean DIT P scores for CPA practitioners in different regions of the country, defined as the Northeast, Midwest, South, and West, are not equal.

DIT data from all questionnaires returned by accountants are used to test this hypothesis. Stated symbolically and in the null form:

$$H_{S_0}: \mu P_{NE} = \mu P_{MW} = \mu P_S = \mu P_W,$$

where: μP_{NE} = mean P score for the Northeast

μP_{MW} = mean P score for the Midwest

μP_S = mean P score for the South

μP_W = mean P score for the West

An ANOVA is used to test the null hypothesis of no difference between regional means. Subsequently, Tukey's Studentized Range (HSD) Test is applied to identify specific contrasts, for which there is a statistically significant difference. Tukey's method is used because it is conservative when sample sizes are unequal.

The hypotheses stated are examined statistically in the following chapter. Results are discussed; however, discussion of prescriptions suggested by the research and of findings that suggest certain directions for further research is taken up in Chapter VI.

CHAPTER V

DATA ANALYSIS AND RESULTS

Analysis and interpretation of data are presented in this chapter. Under the first subheading is a description of survey results, assessment of potential sources of bias, and tests for distribution normality. Second, the selection hypothesis is retested with the use of the present data set. Third, an analysis of the political content of the Defining Issues Test is presented. Fourth, the equality of means for firm partners and sole proprietors is tested. Lastly, the hypothesis that DIT scores for CPA practitioners in different regions of the country is examined.

Description of Data and Assessment of Possible Bias

Exhibited in Table 5.1, for comparison purposes, is the distribution by geographic region of the membership of the AICPA, the geographic distribution of the entire 5,000 person survey sample of AICPA members, and the geographic distribution of individuals who completed and returned the questionnaires. Distribution of the survey sample appears to be materially the same as the distribution of the population from which the sample was drawn ($\chi^2 = 0.164$, 3 df, Pr = 0.983). Distribution of completed questionnaires appears to be materially the same as the distribution of the survey sample ($\chi^2 = 1.295$, 3 df, Pr = 0.730). In the nature of negative assurance, in respect to the

geographic distribution there is no evidence that either the sample or the data are not representative of the population from which the sample has been drawn.

TABLE 5.1

**DISTRIBUTION OF THE SAMPLE BY GEOGRAPHIC REGION COMPARED
TO THE DISTRIBUTION BY GEOGRAPHIC REGION
OF THE MEMBERSHIP OF THE AICPA**

	Northeast*	Midwest	South	West
	CT, MA, ME, NH, NJ, NY, PA, RI, VT,	IL, IN, MI, OH, WI, IA, KS, MO, MN, ND, NE, SD	AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV	AZ, AK, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
Distribution of AICPA Membership**	22.9%	23.5%	34.5%	19.1%
Distribution of Survey Sample	24.4%	24.2%	31.9%	19.5%
Distribution of Individuals Responding	18.0%	27.6%	34.5%	19.9%
* Regions are as defined by the United States Bureau of the Census (1990). Members residing in U.S. possessions and foreign countries are excluded.				
**AICPA http://www.aicpa.org/index.htm , 1996				

Of the 5,000 questionnaires mailed to accountants, 154 were returned by the postal service as undeliverable, reducing the effective sample size to 4,846. Of the 1,000 questionnaires mailed to attorneys, 38 were returned as undeliverable, reducing that sample to an effective size to 962. Responses were received to a total of 923 of the questionnaires mailed to accountants (19.0 %), and to 182 of the questionnaires mailed to attorneys (18.9%). Detailed information pertaining to each type of questionnaire is presented in Table 5.2.

TABLE 5.2
RATE OF RESPONSE

	Certified Public Accountants						Attorneys
	ACC ₁	ACC ₂	ACC ₃	ACC _p	ACC _s	Total	LAW ₀
Sample Size	1,000	1,000	1,000	1,000	1,000	5,000	1,000
Undeliverable	<42>	<31>	<38>	<20>	<23>	<154>	<38>
Effective Size	958	969	962	980	977	4,846	962
Questionnaires Completed	188	189	246	141	159	923	182
Response Rate	19.6%	19.5%	25.6%	14.4%	16.3%	19.0%	18.9%

Data were entered into a data base as questionnaires were received. The state of residence of each respondent was determined by reading postal service marks on the envelopes. Responses to the Collins-Hayes Conservatism Scale were scored electronically, in accordance with procedures established by the Scale's designers (Collins and Hayes, 1993). Responses to the Defining Issues Test were scored electronically in accordance with standard scoring procedure (Rest, 1990).² As shown in Table 5.3, of the 923 questionnaires returned by CPAs, 102 are not usable either because they are not complete or because they are invalid, in accordance with standard scoring procedure. Invalid questionnaires exhibit a pattern of responses indicating that the individuals had used a response set in completing the DIT (they had tried to bias the results; Rest, 1990). Of the 182 questionnaires returned by attorneys, 13 are not usable.

² Programs used to compute scores for the Collins-Hayes Conservatism Scale and for the Defining Issues Test are available from the author (for examination purposes only).

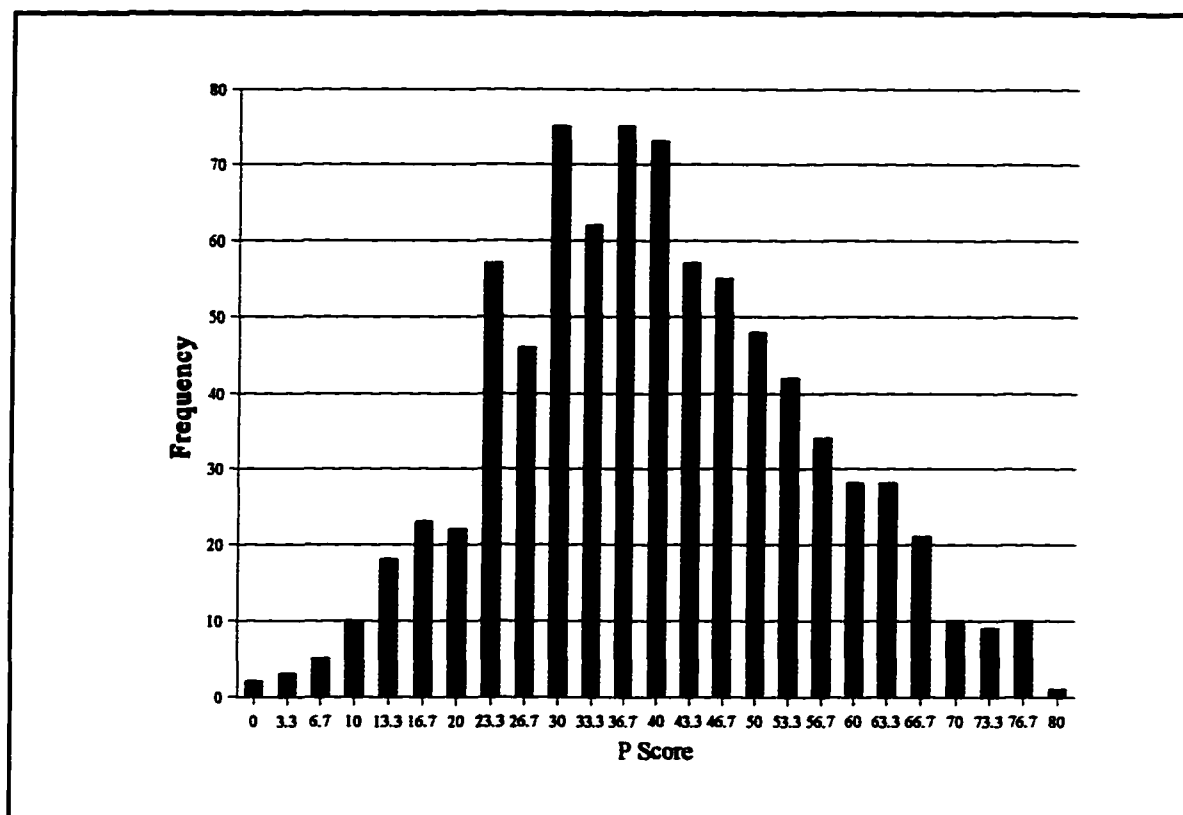
TABLE 5.3
NUMBERS OF QUESTIONNAIRES USED IN THE ANALYSIS

	Certified Public Accountants						Attorneys
	ACC ₁	ACC ₂	ACC ₃	ACC _p	ACC _s	Total	LAW ₀
Questionnaires Completed	188	189	246	141	159	923	182
Invalid or Incomplete	<23>	<18>	<24>	<17>	<20>	<102>	<13>
Usable Questionnaires	165	171	222	124	139	821	169

Normality of Distribution of Dependent Variables

Exhibited in Chart 5.1 is the distribution of the DIT P scores for questionnaires distributed to accountants (questionnaires ACC₁, ACC₂, ACC₃, ACC_p and ACC_s). Wilk's W (Shapiro and Wilk, 1965) for the distribution of P scores is 0.9719, $\text{Pr} < W = 0.0001$, which leads to rejection of the null hypothesis that the population of CPA's DIT P scores, from which the sample is drawn, is not normally distributed. Wilk's W for the distribution of scores on the Collins-Hayes Conservatism Scale is 0.9788, $\text{Pr} < W = 0.0001$, which leads to rejection of the null hypothesis that the population of scores on the Collins-Hayes scale from which the sample is drawn is not normally distributed. Accordingly, parametric statistics are used in the subsequent analyses except where noted otherwise.

CHART 5.1
DISTRIBUTION OF SAMPLE P SCORES: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃, ACC_P AND ACC_S



Assessment of Bias Due to Questionnaire Design

The response rate for ACC₃ ($246 \div 962 = 25.6\%$) is appreciably higher than that for all other questionnaires. Part 4 of ACC₃ consists of the Multidimensional Scale developed by Reidenbach and Robin (1990), which involves a comparatively straightforward set of instructions and requires comparatively little time for completion. Part 4 of ACC₁ is the DIT with instructions to respond from a contrary political

perspective. Part 4 of ACC₂ is the DIT with instructions to respond from the perspective of the individual who constitutes the most salient source of moral pressure. Accordingly, ACC₃ is less taxing than the other questionnaires and this may account for the difference in response rates. To assess the possibility that some bias is introduced due to the different constructions of parts 4 of the respective questionnaires, an ANOVA for unequal sample sizes was performed, comparing the DIT P scores for questionnaires ACC₁, ACC₂ and ACC₃ (questionnaires distributed to the cross section of accountants). As reported in Table 5.5, means and standard deviations for the separate questionnaires are ACC₁ mean 40.80, standard deviation 16.83; ACC₂ mean 40.98, and standard deviation 15.11; and ACC₃ mean 41.05, and standard deviation 15.62. The null hypothesis of equivalence of responses to the three questionnaires cannot be rejected: $F = 0.010$, $Pr > F = 0.989$. Thus, there is negative assurance that the construction of Parts 4 does not bias the response mean on Part 3.

TABLE 5.4
COMPARISON OF MEAN DIT P SCORES: QUESTIONNAIRE
MEANS: QUESTIONNAIRES
ACC₁, ACC₂ AND ACC₃

	ACC ₁	ACC ₂	ACC ₃	Total
N	165	171	222	558
Mean	40.80	40.98	41.05	40.95
S.D.	16.83	15.11	15.62	15.81
$H_0: ACC_1 = ACC_2 = ACC_3$ $F = 0.010; Pr > F = .9885$				

Three and Six Dilemma DITs

No bias exists between results with the three-dilemma Defining Issues Test and the Six Dilemma DIT (Rest, 1990). Increased variance with the three dilemma test does, however, necessitate a larger number of records. A comparison of scores on the two tests was undertaken to provide additional assurance that there are no content differences, specifically relevant to CPAs, between dilemmas that make up short test and the additional three dilemmas that fill out the six dilemma test.

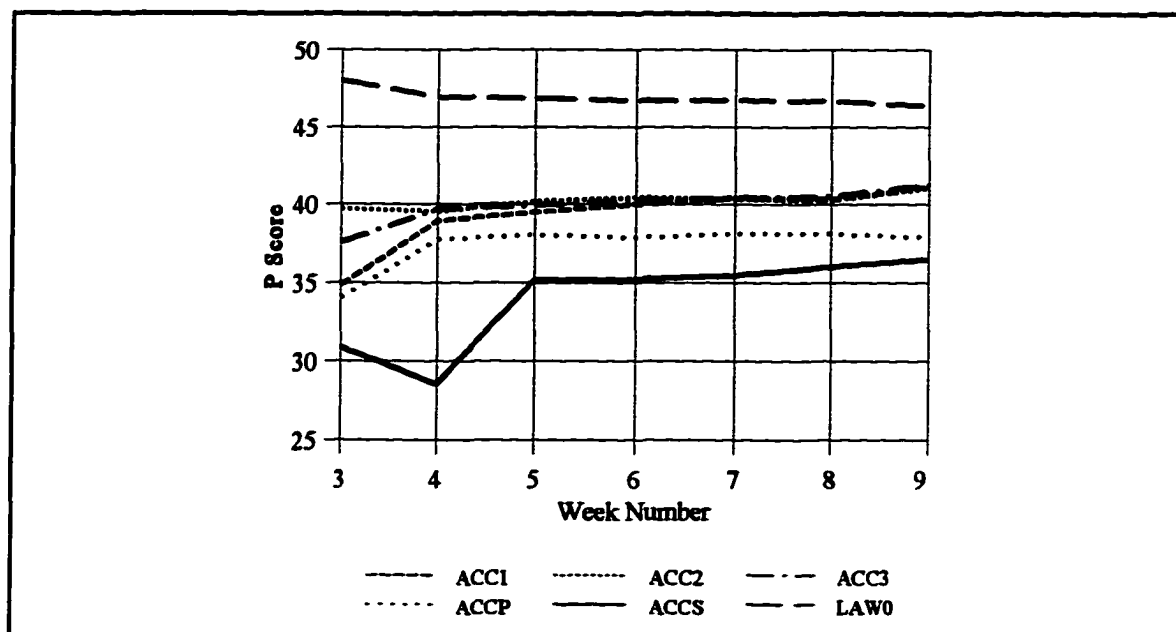
Questionnaires delivered to sole proprietors consist of the six-dilemma test and do not have the variable fourth part that distinguishes the other questionnaires. Because paired comparisons are not independent of each other, a new variable, consisting of the difference between P scores on the three and six dilemma tests, was computed for each record. The null hypothesis that the new variable is not equal to zero was tested. The null hypothesis, $H_0: \mu(P_{\text{Three}} - P_{\text{Six}}) \neq 0$, cannot be rejected: $t = 1.16$; $Pr > t = .2488$.

TABLE 5.5
COMPARISON OF MEAN DIT P SCORES: THREE
DILEMMA DIT AND SIX DILEMMA DIT:
QUESTIONNAIRE ACC_s

	Three Dilemma DIT (Short-Form)	Six Dilemma DIT (Standard Form)	Mean Difference
N	135	135	0
Mean	36.30	37.12	0.83
S.D.	15.07	11.77	8.29
$H_0: \mu(P_{\text{Three}} - P_{\text{Six}}) = 0$ $t = 1.16; Pr > t = .2488$			

CHART 5.2

CUMULATIVE AVERAGE DIT P SCORE OVER TIME: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃, ACC_P, ACC_S AND LAW₀



Assessment of Non-Response Bias

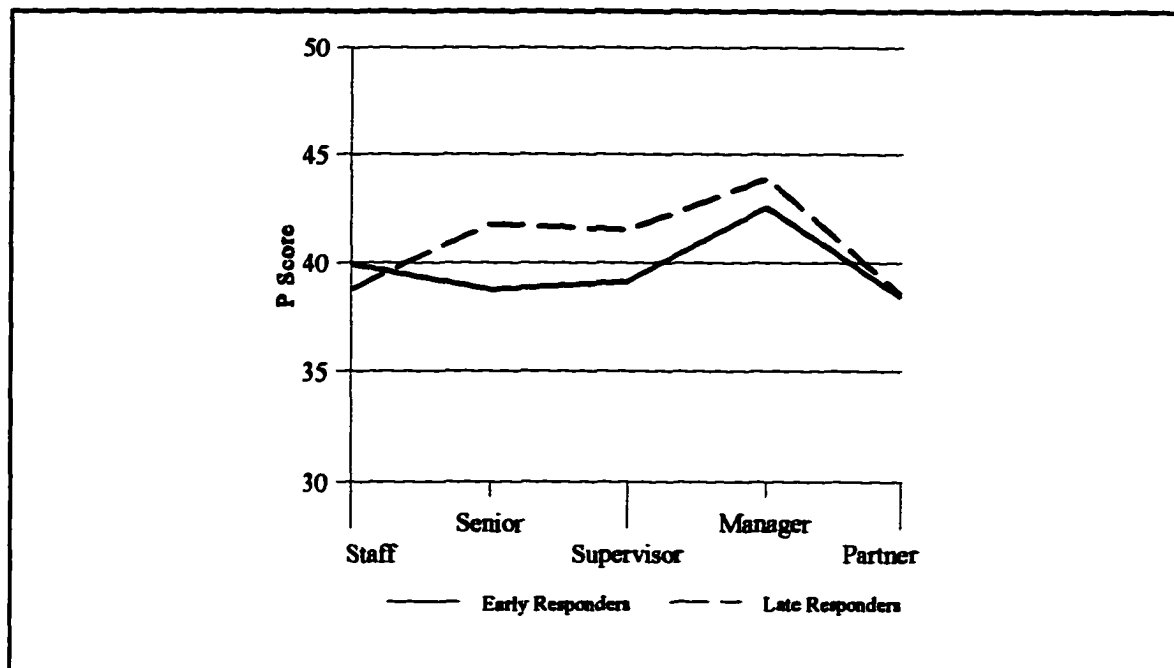
Plotted in Chart 5.2 is the cumulative average DIT P score for each of the six questionnaires. Those responding within the first three weeks appear to exhibit lower scores than those who respond later. Those responding after six weeks are primarily individuals who returned a post card mailed to them as part of follow up procedures. The card indicated a willingness to participate after busy season. Accordingly, after April 15, a replacement questionnaire was mailed. Responses to replacement questionnaires were received considerably later than others. Perhaps, some of the individuals responding early were less deliberate in completing the questionnaire, responding expeditiously so as to

have the matter out of the way. Nevertheless, over time, the mean P score for all questionnaires stabilizes, and the mean P scores for questionnaires ACC₁, ACC₂ and ACC₃ (questionnaires distributed to the cross section of CPAs) converge.

To assess further the potential for nonresponse bias, DIT data for questionnaires ACC₁, ACC₂, ACC₃, and ACC_p, were aggregated, and data for firm staff were divided into two equal groups: early responders, and late responders. The same process was repeated for seniors, supervisors, managers, and partners. Here late responders are to be used as a surrogate for nonresponders, a step justified in general by Larson and Catton (1959). Plotted in Chart 5.3, for each group, is the P score for staff, seniors, supervisors, managers, and partners. A *t* test was performed, comparing each pair of means with the following results: staff $|t| = 1.11$, $\text{Pr} > t = 0.271$; senior $|t| = 1.200$, $\text{Pr} > t = 0.231$; supervisor $|t| = 0.530$, $\text{Pr} > t = 0.599$; manager $|t| = 0.510$, $\text{Pr} > t = 0.610$; partner $|t| = 0.14$, $\text{Pr} > t = 0.889$. No statistical basis is present for assuming that late responders differ from early responders. Insofar as late responders exhibit characteristics of non-responders, there is negative assurance against non-response bias.

CHART 5.3

DIT P SCORE: EARLY AND LATE RESPONDERS: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃ and ACC_p



Ethical Selection Hypothesis

The hypothesized relationship between P score and hierarchical stature in the profession (professional rank) does not materialize. In fact, political ideology operationalized as either one's score on the Collins-Hayes scale, "C₁," or one's self assessed political orientation, "C₂," also is not related to professional rank. Analysis of the present data does not support the proposition that professional rank is, in part, a negative function of ethical capacity or liberal ideology.

The results of a reverse stepwise regression analysis are exhibited in Table 5.6.

Defining Issues Test data were aggregated for questionnaires ACC₁, ACC₂, ACC₃ (cross section of CPAs in public practice), and ACC_p (supplemental sample of firm partners/shareholders). Individuals who were not able to identify themselves as either liberal or conservative account for approximately ten percent of the records. These records are not included in the analysis. None of the variables modeled are significant in determining rank. For the variables P (P score), C₁ (self described political affiliation), and C₂ (score on the Collins-Hayes scale), partial R² statistics are, respectively, 0.0006 ($F = 0.38$, $\text{Pr} > F = .5364$), 0.0036 ($F = 2.16$, $\text{Pr} > F = .1422$), and 0.0025 ($F = 1.48$, $\text{Pr} > F = .2243$). As discussed before, the argument compelling this particular analysis is that, given the well researched negative correlation between conservative ideology and P score, previous findings of a negative association between P score and professional rank may be an artifact of a correlation between conservative ideology and rank. Here, it appears that neither P score, nor political affiliation, nor value system, are factors in professional advancement.

There is a noticeable decline in P score, however, between the ranks of manager ($\mu = 43.19$, S.D. = 15.71) and partner ($\mu = 38.49$, S.D. = 14.65). A one tailed t test (post hoc) is significant: $t = 2.74$, $\text{Pr} > t = .0033$. In Ponemon's 1988/1992a study, the argument set forth is that mature moral judgment is an asset until one reaches management ranks, at which point DIT P scores begin to decline. This explanation, amended where necessary, is one of several taken up in the discussion in the next chapter.

TABLE 5.6
 REVERSE STEPWISE REGRESSION ANALYSIS: RANK AS A FUNCTION
 OF IDEOLOGY AND COGNITIVE DEVELOPMENT: QUESTIONNAIRES
 ACC₁, ACC₂, ACC₃ AND ACC_P

Dependent Variable									
Rank									
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F				
Model	0	0.00	.	.	.				
Error	601	1,200.69	2.00						
Parameter	Estimate	Error	Sum of Squares	F	Pr > F				
Intercept	3.16	0.06	6,009.31	3,007.93	0.0001				
Summary of Backward Elimination Procedure									
Variables Removed (in order)	Partial R ²	Model R ²	C(p)	F	Pr > F				
P	0.0006	0.0060	2.38	0.38	0.5364				
C ₁	0.0036	0.0025	1.54	2.16	0.1422				
C ₂	0.0025	0.0000	2.02	1.48	0.2243				
Means									
Position	P			C ₁ *			C ₂		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
Staff	83	39.40	15.36	83	73.49	0.44	84	54.42	9.72
Senior	210	40.44	15.17	211	70.62	0.46	210	52.84	9.79
Supervisor	76	40.83	17.07	76	71.05	0.46	76	53.47	9.92
Manager	142	43.19	15.71	143	74.13	0.44	142	53.08	9.57
Partner	172	38.49	14.65	177	74.58	0.44	175	53.02	9.20
* Conservative = 1, Liberal = 0, Undefined = 0.									

Defining Issues Test data are aggregated for questionnaires ACC₁, ACC₂, ACC₃ (cross section of CPAs in public practice), and ACC_P (supplemental sample of firm partners/shareholders) to test Hypotheses 3a and 3b. Results for Hypothesis 2 are considered later in the chapter.

$$H3a_0: P_{CPA} = \beta_0 + \beta_1R + \beta_2A + \beta_3E + \beta_4G + \beta_5F$$

$$H3b_0: P_{LAW} = \beta_0 + \beta_1R + \beta_2A + \beta_3E + \beta_4G + \beta_5F$$

A reverse stepwise regression analysis was performed to analyze the contribution of professional position in explaining variance in P scores. Variables in the full model are professional position or rank "R," years of age "A," years of experience "E," gender "S," and firm size "F." The same analysis was performed on the data for attorneys (LAW₀).

Results for CPAs appear in Table 5.7. Results for attorneys appear in Table 5.8. In both cases neither rank, age, experience, nor firm size are determinants of P score. As exhibited in Table 5.7, partial R² statistics for variables age, firm size, experience, and professional rank are, respectively: 0.0029 ($F = 1.96$, $Pr > F = 0.1616$), 0.0022 ($F = 1.51$, $Pr > F = 0.2194$), 0.0039 ($F = 2.66$, $Pr > F = 0.1032$), and 0.0021 ($F = 1.47$, $Pr > F = 0.2265$). Contrary to results reported by Ponemon (1988, 1992a), the data herein do not provide grounds for concluding that lower P scores in management positions indicate discrimination against more highly developed moral judgment. The likely explanation for the disparity between these data and Ponemon's are the seeming sampling incongruities discussed previously. The 1.59 standard deviation decline in P score exhibited in Ponemon's data cannot be generalized to the profession. P score is a function of gender.

The full model reduces to:

$$P_{CPA} = \beta_0 + \beta_4 S,$$

where $\beta_0 = 38.61$ (the mean DIT P score for males) and $\beta_4 = 5.03$ (the amount by which females outperform males).

TABLE 5.7

REVERSE STEPWISE REGRESSION ANALYSIS: DEMOGRAPHIC
INDEPENDENT VARIABLES: CERTIFIED PUBLIC
ACCOUNTANTS: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃ AND ACC_p

Dependent Variable	Mean	S.D.			
P Score	40.50	15.42			
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	3,947.80	3,947.80	16.95	0.0001
Error	665	154,894.47	232.92		
Parameter	Estimate	Error	Sum of Squares	F	Pr > F
Intercept	38.61	0.75	621,668.49	2,668.98	0.0001
S (gender)	5.03	1.22	3,947.80	16.95	0.0001
Summary of Backward Elimination Procedure					
Variables Removed (in order)	Partial R ²	Model R ²	C(p)	F	Pr > F
A (age)	0.0029	0.0331	5.96	1.96	0.1616
F (firm size)	0.0022	0.0309	5.48	1.51	0.2194
E (experience)	0.0039	0.0270	6.15	2.66	0.1032
R (rank)	0.0021	0.0249	5.62	1.47	0.2265

Data for attorneys are analyzed to provide interpretive contrast. Results presented in Table 5.8 show that, as is the case for CPAs, professional rank, age, experience, and firm size drop out of the model. The full model reduces to:

$$P_{\text{LAW}} = \beta_0 + \beta_4 S$$

TABLE 5.8

REVERSE STEPWISE REGRESSION ANALYSIS
DEMOGRAPHIC INDEPENDENT VARIABLES:
ATTORNEYS:
QUESTIONNAIRE LAW₀

Dependent Variable	Mean	S.D.			
P Score	46.45	15.16			
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2,515.78	2,515.78	11.95	0.0007
Error	155	29,258.70	195.10		
Parameter	Estimate	Error	Sum of Squares	F	Pr > F
Intercept	44.92	1.30	250,182.84	1,187.92	0.0001
S (gender)	9.82	2.84	2,515.78	11.95	0.0007
Summary of Backward Elimination Procedure					
Variables Removed (in order)	Partial R ²	Model R ²	C(p)	F	Pr > F
E (experience)	0.0028	0.1212	4.47	0.47	0.4931
A (age)	0.0060	0.0962	3.49	1.02	0.3144
F (firm size)	0.0097	0.0865	3.13	1.65	0.2016
R (rank)	0.0149	0.0716	3.64	2.51	0.1149

One might expect that many of the socialization pressures at work in law firms are also at work in CPA firms. For a multinational Canadian firm, Ponemon and Gabhart (1993) found progressively higher P scores as one moves up the professional hierarchy. They speculate that the difference in pattern, as compared to the declining scores found in domestic firms, may be attributable to a difference in professional cultures; the Canadian culture compared to the one here. In the United States, exercise of individual judgment is discounted in favor of comparability in the application of increasingly detailed rules. However, the present comparison of two professions in the United States, accountancy and law, provides no evidence, in either case, that organizational pressures select against individuals on the basis of the structure of their moral reasoning. It appears that neither one's value system nor one's political ideology are relevant. In this respect, it appears that the environments in which CPAs and attorneys operate are similar.

A comparison of means between accountants and attorneys exhibits a substantial difference between the two. For CPAs, the mean P score is 40.50, with a standard deviation of 15.42 ($F = 16.95$, $Pr > F = 0.0001$). For attorneys, the mean is 46.45, and the standard deviation is 15.16 ($F = 11.95$, $Pr > F = 0.0007$). The low P score for accountants is entirely consistent with prior research, as has been discussed previously. If we accept that a comparatively low P score is a matter for concern, then we need to recognize where the low P score happens. It appears to happen before people reach the profession's entry levels. It appears to happen in academe, and it does not appear to be exacerbated, or improved upon, in any measurable degree, by the processes by which individuals are socialized and granted tenure in the profession. The mean P score for

seniors, supervisors, managers, and partners does not depart significantly from the mean for firm staff. Implications of this matter are taken up in the next chapter.

ANOVA of Demographic Variables

ANOVA procedures comparing mean P scores for specific demographic variables are reported in Table 5.9 (firm size), Table 5.10 (area of practice), Table 5.11 (self reported political orientation), and Table 5.12 (gender). Due to missing values for certain variables the total number of records used in each analysis varies from 799 to 819.

There is a difference in P scores among firms of different sizes ($F = 2.85$, $Pr > F = .0148$). Tukey's procedure (Tukey, 1977) reveals one contrast significant at $\alpha = .05$, and it is also significant at $\alpha = .01$. Mean P scores for firms consisting of a sole proprietor and for large national or multinational firms (firms with greater than 250 members) are, respectively, 36.30 and 41.97. The difference between means is 5.91 ± 5.61 (at $\alpha = .01$).

TABLE 5.9

COMPARISON OF MEAN DIT P SCORES: FIRM
SIZE: QUESTIONNAIRES ACC₁,
ACC₂, ACC₃, ACC_s, ACC_p

	Sole Pro- prietor	1-9	10-24	25-99	100-249	250 +	Total
N	135	150	145	134	30	225	819
Mean	36.30	41.31	38.49	39.28	39.00	41.97	39.76
S.D.	15.07	17.01	14.82	15.73	14.79	14.53	15.36
$H_0: \mu P_{\text{sole}} = \mu P_{(1-9)} = \mu P_{(10-24)} = \mu P_{(25-99)} = \mu P_{(100-249)} = \mu P_{(250+)}$ $F = 2.85; Pr > F = .0148$							

Results of a comparison of mean P scores for different practice areas (audit, tax, MAS) appears in Table 5.10. The data do not allow for rejection of the null hypothesis of equivalence of means ($F = 2.35$, $Pr > F = 0.0963$). It is reasonable to expect that tax practitioners would exhibit less of a pro-social orientation than do auditors. The former are charged with client advocacy, and the latter are charged with advocacy of the interests of parties who are affected by the quality of reported financial information (society as a whole). If management advisory services require a broader base of competencies, and a higher degree of creativity, then, given the correlation between intelligence and cognitive moral development, it would be reasonable to expect that the capacity for moral cognition would be comparatively higher for professionals in management advisory services. These data do not support those assumptions.

TABLE 5.10
COMPARISON OF MEAN DIT P SCORES: AREA
OF PRACTICE: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃, ACC₈, ACC_P

	Audit	Tax	MAS	Other	Total
N	361	352	47	59	819
Mean	40.66	38.77	43.05	37.40	39.75
S.D.	15.56	15.63	12.69	15.10	15.42
$H_0: \mu P_{\text{Audit}} = \mu P_{\text{Tax}} = \mu P_{\text{MAS}}$ $F = 2.35; Pr > F .0963$					

TABLE 5.11

COMPARISON OF MEAN DIT P SCORES: SELF REPORTED
POLITICAL AFFILIATION: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃, ACC_S, ACC_P

	Conservative	Liberal	Undefined	Total
N	589	129	98	816
Mean	38.19	44.65	42.65	39.75
S.D.	15.58	13.50	14.94	15.19
$H_0: \mu P_C = \mu P_L$ $F = 19.03; Pr > F = .0001$				

TABLE 5.12

COMPARISON OF MEAN DIT P SCORES:
GENDER: QUESTIONNAIRES ACC₁,
ACC₂, ACC₃, ACC_S, ACC_P

	Male	Female	Total
N	523	276	799
Mean	37.83	43.60	39.82
S.D.	15.20	15.31	15.23
$H_0: \mu P_M = \mu P_F$ $F = 25.89; Pr > F = .0001$			

The P score for political liberals is higher than for political conservatives: $\mu P_L = 44.65$, $\mu P_C = 38.19$ ($F = 19.03$, $Pr > F = .0001$). The gender difference noted before is again evident: $\mu P_M = 37.83$, $\mu P_F = 43.60$ ($F = 25.89$, $Pr > F = .0001$).

Gender

As exhibited in Tables 5.7 and 5.12, gender is significant in explaining variance in P score means. Socialization and promotional conditions faced by males are quite possibly not the same as those faced by females. Thus, an analysis of changes in P score means over the course of professional development is presented in Table 5.13, for male CPAs, and in Table 5.14, for female CPAs. A comparison of means for males and females for each professional rank is presented in Table 5.15.

TABLE 5.13

REGRESSION ANALYSIS: P SCORE BY PROFESSIONAL
RANK: MALES: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃ AND ACC_p

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	361.12	361.12	1.58	0.2098
Error	416	95,214.60	228.88		
Parameter	Estimate	t	Pr > t		
Intercept	36.18	18.41	0.0001		
Position	0.66	1.26	0.2098		
Position	N	Mean	Standard Deviation		
Staff	37	34.78	15.46		
Senior	109	37.16	14.89		
Supervisor	41	39.92	18.37		
Manager	92	41.82	15.31		
Partner	139	37.82	13.81		

Considering males alone, P score is not a function of rank ($F = 1.58$, $Pr > F = 0.2098$). Although not statistically significant, there is an apparent four point decline in P score between the ranks of manager and partner - a matter that is brought up again later. Considering females alone, the coefficient relating professional rank to P score is 0.00 (zero), yielding an F statistic of 0.00 (zero), $Pr > F = 0.9976$ (one). In this data set, there is no relationship between professional rank and P score.

TABLE 5.14
REGRESSION ANALYSIS: P SCORE BY PROFESSIONAL
RANK: FEMALES: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃ AND ACC_p

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.00	0.00	0.00	0.9976
Error	250	59,324.55	237.30		
Parameter	Estimate	t	Pr > t		
Intercept	43.56	19.46	0.0001		
Position	0.00	0.00	0.9976		
Position	N	Mean	Standard Deviation		
Staff	46	43.12	14.38		
Senior	99	44.20	14.75		
Supervisor	33	40.30	16.04		
Manager	46	45.94	15.20		
Partner	28	42.02	18.60		

TABLE 5.15
COMPARISON OF MEAN DIT P SCORES: PROFESSIONAL
RANK COMPARISON OF SCORES FOR MALES
AND FEMALES: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃ AND ACC_p

Position	Male			Female			Total		
	N	Mean	S.D.	N	Mean	S.D.	N*	Mean	S.D.
Staff	37	34.78	15.46	46	43.12	14.38	83	39.40	15.36
Senior	109	37.16	14.89	99	44.20	14.75	210	40.44	15.17
Supervisor	41	39.92	18.37	33	40.30	16.04	76	40.83	17.07
Manager	92	41.82	15.31	46	45.94	15.20	142	43.19	15.71
Partner	139	37.82	13.81	28	42.02	18.60	172	38.49	14.65
*N total is greater than the sum of N males plus N females because records for which respondents did not provide gender information are necessarily excluded from the computation of separate means for males and females.									

Analysis of Political Content

Data for questionnaires ACC₁, ACC_p, and LAW₀ were aggregated to test the political content of the Defining Issues Test. Parts 3 and 4 of the questionnaires are identical three-dilemma DITs. In Part 4, however, instructions are modified. Liberals are asked to respond from a conservative perspective, $P_{L \rightarrow C}$, and conservatives are asked to respond from the perspective of a liberal, $P_{C \rightarrow L}$. Those who could not define themselves are asked to respond from the perspective of a conservative. Data for those who could not define themselves are not used in the analysis. The null hypothesis is

$$H2_0: P_L = P_{L \rightarrow C} \text{ and } P_C = P_{C \rightarrow L}$$

Paired t Test

Results are reported in Table 5.16. Of the people who responded, all but five marked the DIT differently when responding from an alternative political perspective. Otherwise, subjects read political content into the issues contained in DIT.

Consistent with the data in Table 5.12 (comparison of P scores for liberals and conservatives using data from all of the questionnaires completed by accountants: ACC₁, ACC₂, ACC₃, ACC_S, ACC_P), the DIT P score of self-defined conservatives is significantly lower than that of self-defined liberals. The P score for conservatives, μP_C , is 39.65, and the P score for liberals, μP_L , is 48.11. The modal response for conservatives is Stage 4 (conventional reasoning), and Stage 5 (principled reasoning) is modal for liberals.

Consistent with prior research, the P score for conservatives is elevated under the instruction to respond to the DIT as they believe a liberal would respond ($\mu P_{C \rightarrow L} = 46.88$, an increase of 7.23 points, $|t| = 5.73$, $Pr > t = .0001$). When liberals respond to the test from the perspective of conservatives, P score is depressed ($\mu P_{L \rightarrow C} = 19.10$, a dramatic decrease of 29.01 points, $|t| = 15.46$, $Pr > t = .0001$).

These results are the same as those reported by Emler (1983) and Markoulis (1989) discussed previously. As discussed, each concludes that this evidence demonstrates the ability of conservatives to duplicate the reasoning of liberals. Thus, they conclude that the moral judgment capacity is being under-reported for conservatives, and they conclude that liberal political ideology, and what cognitive developmentalists refer to as principled moral judgement, are substantially overlapping phenomena.

TABLE 5.16
COMPARISON OF DIT SCORES FOR CONDITIONS OF POLITICAL POSTURING

Reported Political Orientation	Orientation of Response	Nature of Response								
		Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	A	M	P (5+6)	
Conservative (N = 250)	Self	Mean	2.61	12.99	39.16	31.40	8.25	0.71	4.69	39.65
		S.D.	4.60	9.91	16.22	13.84	5.39	2.39	5.15	14.90
	as Liberal	Mean	1.85	22.47	13.69	43.11	3.77	6.76	8.31	46.88
		S.D.	3.81	12.71	10.31	15.51	5.14	6.84	7.79	16.91
		Δ_C	-0.76	9.47	-25.47	11.70	-4.48	6.05	3.62	7.23
		S.D.	5.03	14.37	17.25	18.78	6.94	7.05	8.15	19.95
		t	2.39	10.42	23.35	9.85	10.20	13.57	7.02	5.73
		P > t	.0177+2	.0001	.0001	.0001	.0001	.0001	.0001	.0001
Liberal (N = 111)	Self	Mean	3.06	14.39	30.18	40.52	7.59	0.30	3.90	48.11
		S.D.	4.99	11.38	13.96	14.62	5.81	1.23	4.79	15.45
	as Conservative	Mean	2.28	12.55	60.75	11.05	8.05	0.75	4.41	19.10
		S.D.	4.36	9.49	13.77	11.54	5.32	2.57	5.47	12.13
		Δ_L	-0.78	-1.84	30.57	-29.46	.46	0.45	0.52	-29.01
		S.D.	5.85	13.49	20.40	19.75	7.08	2.93	6.58	19.77
		t	1.41	1.43	15.79	15.73	0.68	1.63	0.83	15.46
		P > t	.1618+2	.1548+2	.0001	.0001	.4983+2	.1066+2	.4092+2	.0001

These results do not, however, support all of the conclusions above. Scores for the DIT, and the $DIT_{C \rightarrow L, L \rightarrow C}$, are charted on Chart 5.4, for ease of interpretation. Differences between scores for the DIT, and the $DIT_{C \rightarrow L, L \rightarrow C}$, are charted on Chart 5.5. When instructed to respond from a liberal perspective, the conservatives, in this highly sophisticated and educated population of accountants and attorneys, exhibited a response pattern that appears to be indiscriminant. Demonstrated dramatically in the top of Chart 5.4, they abandoned their modal Stage 4 conventional issues ($\mu S4_{C \rightarrow L} - \mu S4_C = -25.47, t = 23.35, Pr > t = .0001$) for, indiscriminantly, Stage 3, P, A and M type items ($\mu S3_{C \rightarrow L} - \mu S3_C = 9.47, t = 10.42, Pr > t = .0001$; $\mu P_{C \rightarrow L} - \mu P_C = 7.23, t = 5.73, Pr > t = .0001$; $\mu A_{C \rightarrow L} - \mu A_C = 6.05, t = 13.57, Pr > t = .0001$; $\mu M_{C \rightarrow L} - \mu M_C = 3.62, t = 7.02, Pr > t = .0001$). Expressed preference for Stage 3 issues, P type issues, A type issues, and M type issues increases significantly, and these issues have nothing in common, except for being "other than" Stage 4 issues.

When instructed to respond from a conservative perspective, liberal subjects exhibited a highly discriminatory pattern of responses, abandoning Stage 5, principled issues ($\mu P_{L \rightarrow C} - \mu P_L = 29.01, t = 15.46, Pr > t = .0001$), for Stage 4, conventional issues ($\mu S4_{L \rightarrow C} - \mu S4_L = 30.57, t = 15.79, Pr > t = .0001$). This is demonstrated dramatically in the bottom of Chart 4. The t statistics for changes in Stage 2, Stage 3, Stage 6, A, and M type items are not statistically significant.

What is true of the sample is true of every element of the sample. All but a handful of the 250 records analyzed for the $DIT_{C \rightarrow L}$ condition exhibited the same pattern of

indiscriminant responses. That handful one would expect to occur on the basis of chance, if every one of the 250 subjects had responded indiscriminantly. Thus, the present data do not support the conclusions of Markoulis and Emler that under the instruction to respond to the DIT from a particular political perspective, conservative subjects successfully mimicked the reasoning of liberals.

From the data the conclusion can be drawn that either conservatives posing as liberals had failed to comprehend principled type issues, or conservatives tended to see liberalism as self-serving, principled, anarchic, and nonsensical. On the other hand, liberals tended to see conservatives as relying on conventional reasoning in the resolution of social conflicts. Whether these ideological differences constitute differences in capacity for moral reasoning is purely a philosophical issue. Whether the Defining Issues Test is ultimately a test of political ideology is a matter of convention.

CHART 5.4
DIT SCORES FOR CONDITIONS OF POLITICAL POSTURING

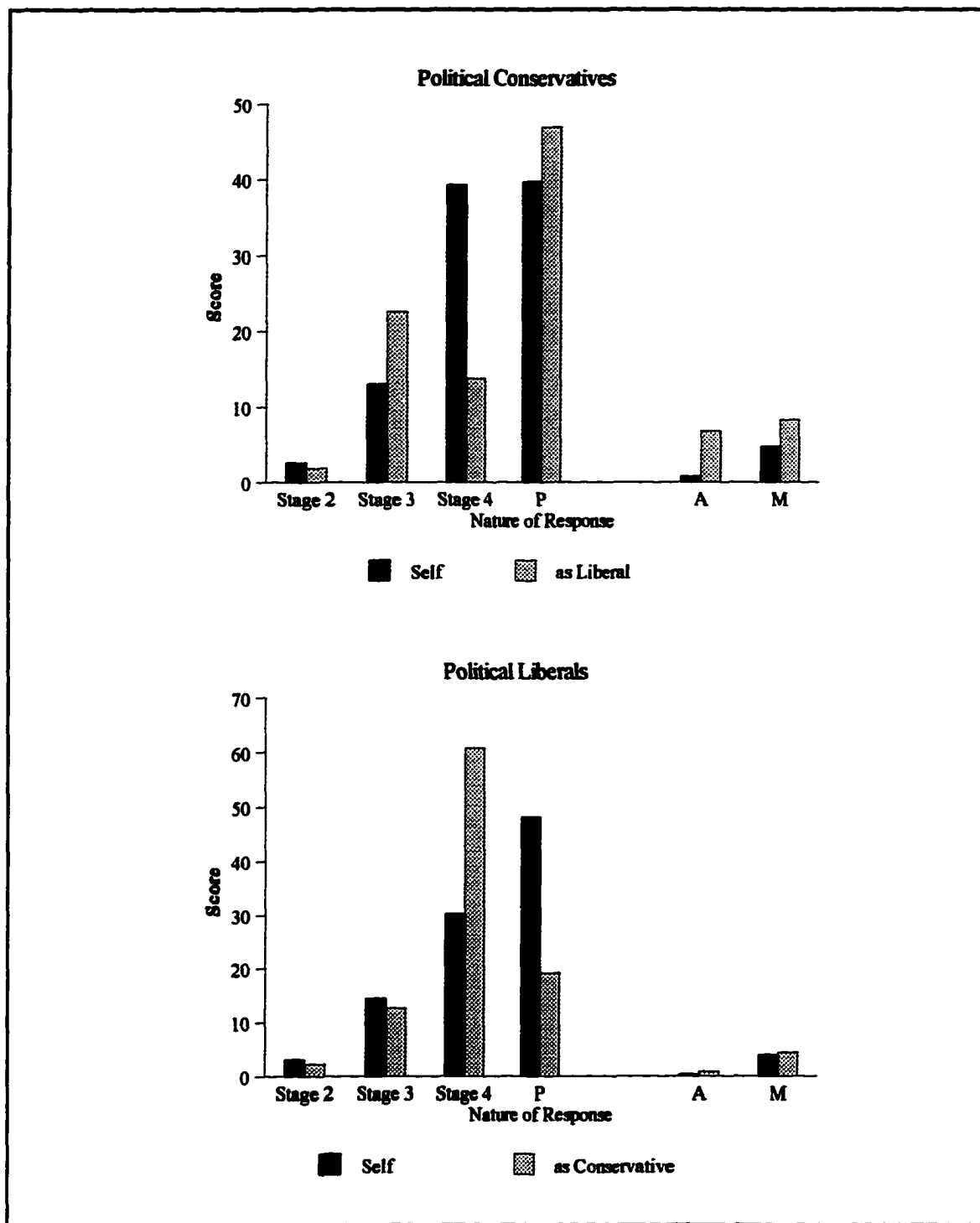
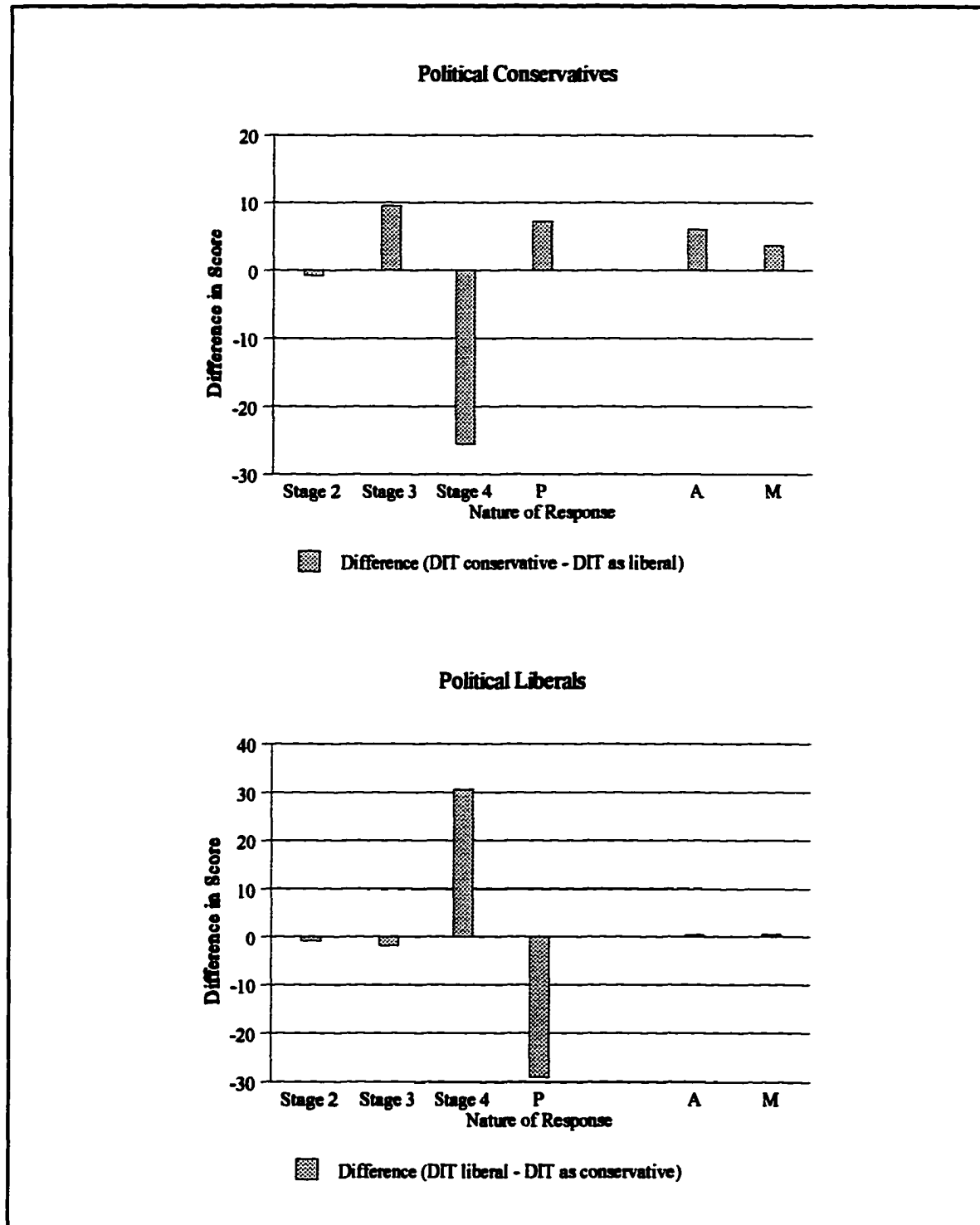


CHART 5.5
CHANGE IN DIT SCORES FOR CONDITIONS OF POLITICAL POSTURING



Discriminant Analysis

A stepwise discriminant analysis was performed to assess the extent to which DIT responses predict self-reported political orientation. The hypothesis tested is as follows, in symbolic form, and in the null form:

$$H_0: D = \beta_0 + \beta_{S3}S3 + \beta_{S3 \rightarrow}S3_{\rightarrow} + \beta_{S4}S4 + \beta_{S4 \rightarrow}S4_{\rightarrow} + \beta_P P + \beta_{P \rightarrow}P_{\rightarrow}$$

Where:	S3	=	S3 _L and S3 _C combined
	S3 _→	=	S3 _{L→C} and S3 _{C→L} combined
	S4	=	S4 _L and S4 _C combined
	S4 _→	=	S4 _{L→C} and S4 _{C→L} combined
	P	=	P _L and P _C combined
	P _→	=	P _{L→C} and P _{C→L} combined

The “complete stepwise method,” which involves minimization of the overall Wilk’s lambda, was utilized because the method produces the reduced model with the lowest percentage of misclassifications (Eisenbeis and Avery, 1972). The stepwise procedure eliminated all but S4 and S4_→ as discriminating variables. For S4, $F = 25.58$, $Pr > F = .0001$, and for S4_→, $F = 1,293$, $Pr > F = .0001$. The linear discriminant model below is significant at the .0001 level. H_0 is rejected accordingly. Coefficient values, means, and variances of model variables appear in Tables 5.17 and 5.18:

$$D = \beta_0 + \beta_{S4}S4 + \beta_{S4 \rightarrow}S4_{\rightarrow}$$

TABLE 5.17

VALUE OF COEFFICIENTS

Coefficient	Value*	F	Pr > F
β_0	-1.867		
β_{s4}	-0.160	25.58	.0001
$\beta_{s4'}$	0.869	1293.00	.0001

TABLE 5.18

MEANS AND VARIANCES OF INDEPENDENT VARIABLES

Variable	Conservative		Liberal		Total	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
S4	39.160	16.223	30.180	13.962	36.399	16.091
S4 ₊	13.693	10.302	60.751	13.764	28.162	24.580

The discriminatory power of the model was tested by applying it to the same data with which it was determined. A degree of bias is present in the assessment because coefficients used to classify any particular record have been computed with the use of a set of records that include the one being classified. However, in the present case, the sample size is sufficiently large and the range of values sufficiently homogeneous that any such bias is very small, and no corrective procedures are warranted. As presented in Table 5.19, the model correctly classified 96.95% of the records. The predictive ability of the model is extremely high.

The small partial F for $S4$ ($F = 25.58$, $\text{Pr} > F = .0001$), as compared to $S4_{\rightarrow}$ ($F = 1,293.00$, $\text{Pr} > F = .0001$), leads to testing the following model:

$$D = \beta_0 + \beta_{S4_{\rightarrow}} S4_{\rightarrow}$$

As shown in Table 5.20, $S4_{\rightarrow}$ alone is sufficient to correctly classify 96.12% of the records. $S4_{\rightarrow}$ is $S4_{L \rightarrow C}$ and $S4_{C \rightarrow L}$ combined, which means Stage 4 score for liberals responding from the perspective of a conservative, and Stage 4 scores for conservatives responding from the perspective of a liberal. This extremely accurate single variable discriminant function compels argument that there is sufficient political content in the Defining Issues Test to bias results, when groups of liberals are compared to conservatives, or when a longitudinal study is undertaken (see again the discussion of age trends in conservatism). This matter is taken up again in the following chapter.

TABLE 5.19

CLASSIFICATION BASED ON DISCRIMINANT VARIABLES S4 AND S4₂

	Predicted Classification					
	Conservative		Liberal		Total	
Conservative	246	(98.4%)	4	(1.6%)	250	(100%)
Liberal	7	(6.3%)	104	(93.7%)	111	(100%)
Total	253		108		361	
Cases correctly classified = 96.95%						

TABLE 5.20

CLASSIFICATION BASED ON DISCRIMINANT VARIABLE S4₂

	Predicted Classification					
	Conservative		Liberal		Total	
Conservative	244	(97.6%)	6	(2.4%)	250	(100%)
Liberal	8	(7.2%)	103	(92.8%)	111	(100%)
Total	252		109		361	
Cases correctly classified = 96.12%						

When asked to respond from the perspective of the most significant source of moral pressure, people tended to abandon principled reasoning (P = Stage 5 + Stage 6) in favor of instrumental reasoning (Stage 3). See Table 5.21.

TABLE 5.21
COMPARISON OF DIT SCORES FOR CONDITIONS OF POSTURING
AS SOURCE OF MORAL PRESSURE

		Nature of Response							
		Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	A	M	P (5+6)
Self (N = 146)	Mean	3.95	14.08	35.98	33.16	7.89	0.73	4.20	41.05
	S.D.	5.86	10.76	15.94	14.58	5.98	2.33	4.98	14.74
as Source of Contrary Moral Pressure	Mean	4.80	23.13	37.35	23.63	4.15	1.76	5.18	27.79
	S.D.	5.97	15.45	17.92	14.29	5.55	3.68	6.53	15.14
Δ		0.85	9.05	1.37	-9.52	-3.74	1.03	0.98	-13.27
S.D.		6.58	17.43	22.79	19.44	6.63	4.42	6.83	19.07
$ t $		1.56	6.27	0.73	5.92	6.82	2.81	1.74	-8.40
$P > t $.1214	.0001	.4679	.0001	.0001	.0057	.0837	.0001

Partners and Sole Proprietors

There is no statistical basis for distinguishing between P scores of sole proprietors and those of partners in accounting firms. As shown in Table 5.22, the absolute value of the t statistic for the null hypothesis of equivalence of means ($H_{40}: \mu P_S < \mu P_P$) is = 1.28, $\Pr > |t| = .1016$. It does not appear, then, that incorrect inclusion of sole proprietors in the population of firm partners analyzed in Ponemon's original study on ethical selection could account for the depressed P score for the "partners."

However, only in accounting firms, as opposed to sole proprietors, is there sufficient organizational structure for there to be an ongoing "up or out" process. And an ongoing "up or out" process is a necessary condition for the operation of the ethical selection hypothesis. Accordingly, a process of ethical selection in accounting firms cannot account for the depressed P scores of sole proprietors. It appears that either sole proprietors and firm partners exhibit depressed P scores for different reasons, or for a common reason, independent of the structure of the organizations in which they practice. If we agree that depressed P scores reflect an underlying ethical deficiency, then accurately assessing the root cause of the depressed P scores is the first step toward responding effectively and efficiently.

TABLE 5.22

COMPARISON OF MEAN DIT P SCORES: PARTNERS
AND SOLE PROPRIETORS: QUESTIONNAIRES
ACC₁, ACC₂, ACC₃, ACC_P AND ACC_S

	Staff	Senior	Super- visor	Manager	Partner	Sole Pro- prietor	Total
N	83	210	76	142	172	135	818
Mean	39.40	40.44	40.83	43.19	38.49	36.30	39.76
S.D.	15.36	15.17	17.07	15.71	14.65	15.07	15.35
$H_0: \mu P_{\text{Staff}} = \mu P_{\text{Senior}} = \mu P_{\text{Supervisor}} = \mu P_{\text{Manager}} = \mu P_P$ $F = 1.93; \text{Pr} > F = .1032$							
$H_{40}: \mu P_S < \mu P_P$ $ t = 1.28$ $\text{Pr} > t = .1016$							

Regional Differences in DIT Scores

Defining Issues Test data for questionnaires ACC₁, ACC₂, ACC₃, ACC_P, and ACC_S were aggregated to test the hypothesis of equivalence in regional performance on the Defining Issues Test. Stated symbolically, and in the null form:

$$H_{50}: \mu P_{NE} = \mu P_{MW} = \mu P_S = \mu P_W$$

An ANOVA for the null hypothesis of no difference between regional means yields an F statistic of 3.23, which is significant at the .022 level (Table 5.22), and the null hypothesis of equivalence of regions is rejected. Subsequently, a post-hoc test, Tukey's Studentized Range (HSD) Test (Tukey, 1977), was applied to identify specific contrasts

for which there is a statistically significant difference. Tukey's method is used because it is conservative, as compared to other statistical contrasts, when sample sizes are unequal. As summarized in Table 5.24, for a 0.10 family confidence coefficient, there is a difference at $\alpha = 0.10$ between the mean DIT P scores for the Northeast ($\mu P_{NE} = 41.36$) and the South ($\mu P_S = 37.54$), and there is a difference ($\alpha = 0.05$) between the P scores for the Midwest ($\mu P_{MW} = 41.45$) and the South.

TABLE 5.23
COMPARISON OF MEAN DIT P SCORES: GEOGRAPHIC
REGION: QUESTIONNAIRES ACC₁, ACC₂,
ACC₃, ACC_P AND ACC_S

	P_{NE}	P_{MW}	P_S	P_W	Total
N	141	216	267	159	783
Mean	41.36	41.45	37.54	39.41	39.69
S.D.	15.06	15.14	15.85	15.40	15.49
$H_{50}: \mu P_{NE} = \mu P_{MW} = \mu P_S = \mu P_W$ $F = 3.23; Pr > F = 0.0220$					

TABLE 5.24
TUKEY'S STUDENTIZED RANGE (HSD) TEST
 $\alpha = 0.10$, $df = 779$

Contrast			Difference Between Means	Statistically Significant Contrast
$ \mu_{P_{NE}} - \mu_{P_S} $	=	$ 41.36 - 37.54 $	3.82 ± 3.69	X
$ \mu_{P_{NE}} - \mu_{P_{MW}} $	=	$ 41.36 - 41.44 $	0.08 ± 3.83	
$ \mu_{P_{NE}} - \mu_{P_W} $	=	$ 41.36 - 39.41 $	1.95 ± 4.10	
$ \mu_{P_S} - \mu_{P_{MW}} $	=	$ 37.54 - 41.44 $	3.91 ± 3.24	X*
$ \mu_{P_S} - \mu_{P_W} $	=	$ 37.54 - 39.41 $	1.87 ± 3.55	
$ \mu_{P_{MW}} - \mu_{P_W} $	=	$ 41.45 - 39.41 $	2.04 ± 3.70	
* The $\mu_{P_S} - \mu_{P_{MW}}$ contrast also is significant at $\alpha = 0.05$ with a difference between means of 3.91 ± 3.63 .				

CHAPTER VI

DISCUSSION

Implications of the present research, research limitations, and suggestions for future research are discussed below in order. Perhaps the most significant outcome, in general terms, is that in areas in which there has been wide acceptance of certain phenomenon or explanations, there is now reason to re-examine the empirical foundations upon which that acceptance is based.

Implications of the Research

Ethical selection, the political content of the Defining Issues Test, gender differences and regional differences are discussed below from the perspective of policy and research implications.

Ethical Selection

Looking at empirical data developed in prior research, it appears that people in management positions in CPA firms (managers and partners) exhibit lower P scores than individuals in staff positions (staff, seniors, and supervisors). It was hypothesized that there are plausible explanations for the phenomenon other than the operation of retention and promotion processes that discriminate against moral competence. It was hypothesized

that the phenomenon may be a consequence of the inability of the Defining Issues Test to disentangle reasoning content, specifically, political ideology, from reasoning structure. The well researched phenomenon of increasing conservatism with increasing age adds credence to this hypothesis.

However, the expected decline in P score did not materialize. The data herein provide no basis for concluding that cognitive moral development is a criterion for discrimination in promotion and retention practices on a profession wide basis. Defining Issues Test scores for Stage 2, Stage 3, and Stage 4 reasoning, P score, A items, and M items are homogeneous to a considerable degree through the manager level. Political affiliation is similarly homogeneous across professional positions. Personal value systems, as measured with the fundamental and divisive issues constituting the Collins-Hayes scale, are similarly homogeneous. However, there is a decline in P score from the manager to the partner/shareholder level (Table 5.15 and Chart 6.1). With respect to this difference, a one tailed t test (post hoc) is significant: $t = 2.74$ $Pr > t = .0033$.

Data from Ponemon 1988/1992a appear in Chart 6.1 and are compared to DIT data developed in the present study. Note: (1) the profile of Stage 2, Stage 3, Stage 4, P, A and M type responses evident in the data developed in the present study is remarkably homogeneous from one rank to the next, (2) there is a low level of conformist (Stage 3) reasoning at all levels exhibited in the data developed in the present study, whereas Stage 3 reasoning is modal for partners and nearly so for managers in Ponemon's data.

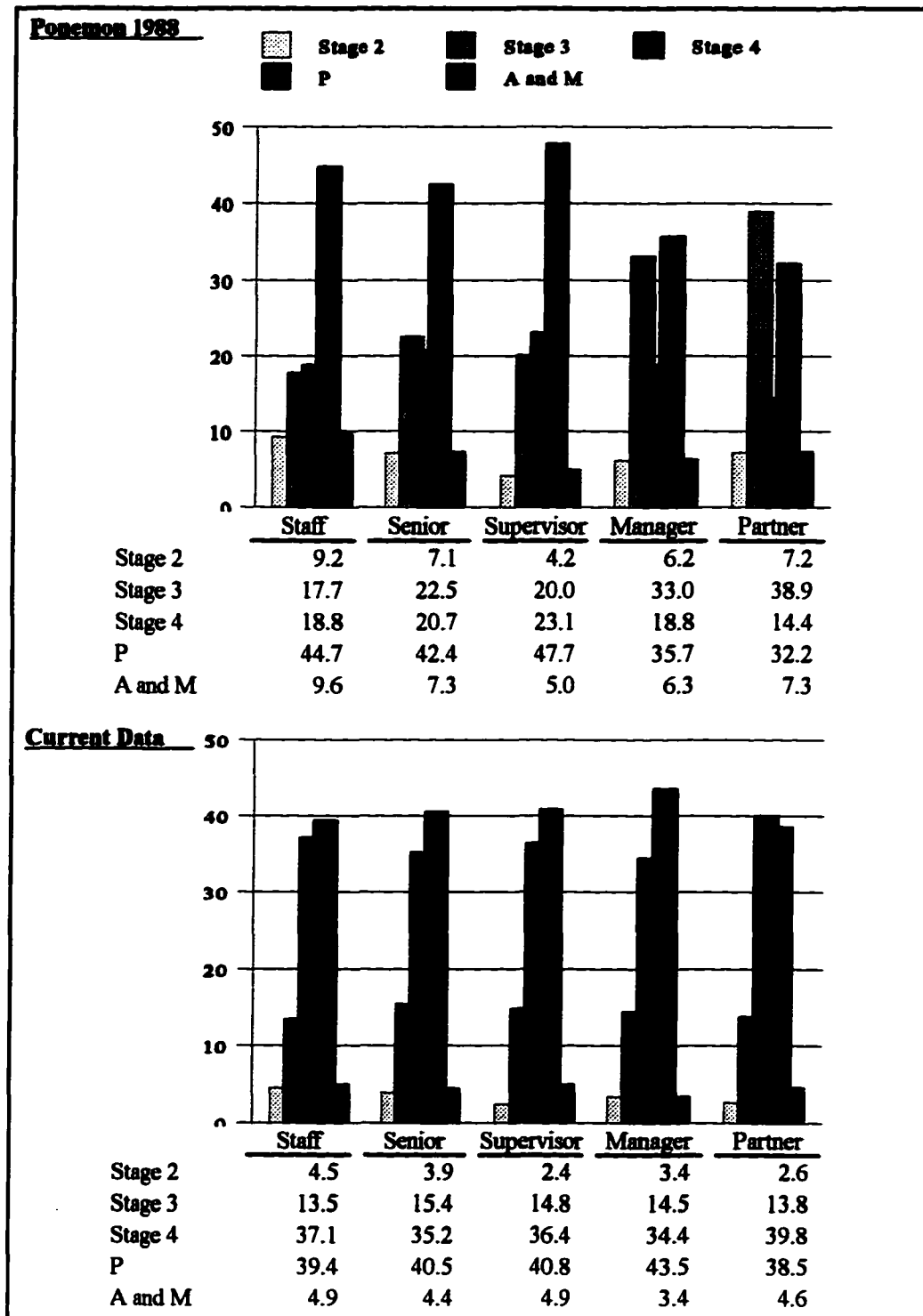
These results depart materially from those published by Ponemon 1988/1992a, and several possible explanations are apparent. Subsequent to publication of Ponemon's study

in 1992, and in response to the findings reported therein, programs designed to promote moral development as an element of mandatory continuing professional education may have elevated P scores for some of those who responded. However, P score for staff in the present study is 5.31 points *below* the one reported in Ponemon's study ($44.71 - 39.40 = 5.31$). P score for seniors is 1.96 points *below* the one reported in Ponemon's study ($42.40 - 40.44 = 1.96$). P score for supervisors is 6.91 points *below* the one reported in Ponemon's study ($47.74 - 40.83 = 6.91$). It is against these high marks that the decline in P score in the higher ranks of the profession reported by Ponemon is measured. We should hope that lower scores for staff, seniors, and supervisors are not a consequence of programs intended to promote cognitive moral development. It is improbable but still possible that scores for managers and partners are higher in the present study than those reported by Ponemon as a consequence of the participation of these individuals, in the interim, in programs designed to elevate scores on the Defining Issues Test.

Results cannot be explained away as a consequence of the use of the three dilemma version of the Defining Issues Test. First, the DIT (and Kohlberg's Moral Judgment Interview) have used the same dilemmas from the time of their inception. Those dilemmas have been used implicitly to describe the domain of moral reasoning. There is a risk of tautology in defining moral judgment as something accessed by only these dilemmas and all six of them. Second, there is no measurement bias as a consequence of the use of the three dilemma test (Rest, 1990). The cost in using the three dilemma test is increased variance. Lastly, results comparing the two tests in the present study show them to be statistically indistinguishable as to the measurement of P score means (Table 5.5).

CHART 6.1

**DEFINING ISSUES TEST SCORES BY PROFESSIONAL POSITION
COMPARISON WITH PONEMON 1988/1992a**



The most likely explanation for the discrepant results of the present study with Ponemon's (1988/1992a) is that the data in the latter are not representative. There are demographic dimensions of the data set as a whole that do not reconcile with the population from which the data were drawn.

There simply is no basis for concluding that there is discrimination in promotion in the accounting profession, as a whole, based on either cognitive moral development as measured with the DIT, one's values as measured with the Collins-Hays scale, or one's self-identified political orientation. The finding is not surprising. Surely there are myriad factors that determine professional success in public accounting. Administrative and technical competence, intelligence, energy, appearance, one's legacy, and a myriad stylistic personality and psychological traits some of which have been identified in the socialization literature cited earlier. Ideological "content" of reasoning must be important as well, since one might gather that a principled Marxist is much less likely to be an accountant than is a principled capitalist.

Between the ranks of manager and partner, in the present study, there is a decline in P score with a corresponding increase in the score for Stage 4 reasoning. This is precisely what should be expected on the grounds of the literature reviewed pertaining to reasoning content. Weber (1990), Sparks and Durkin (1987), Lawrence (1987) all have demonstrated that preference for certain types of reasoning can interfere with efforts to measure capacity for other types of reasoning; especially, as Lawrence found, when one functions in an environment governed by a powerful and salient conventional code. Accountants function in just such an environment. Individuals who, as a matter of

professional survival, must consistently think of the defensibility of their actions in regards to professional standards, codified professional ethics, the law, and the expectations of clients and society as a whole, may very likely profess a high regard for conventional reasoning notwithstanding any developed capacity for post-conventional judgment. This exposure to risk is one characteristic shared by both sole proprietors and firm partners/shareholders, groups indistinguishable, as to their P scores, in the present study. P scores are lower for *both sole proprietors and partners/shareholders*, whose signature goes on the work product, than for lower level employees, who are considerably more insulated from the threat of litigation.

Political Content of the Defining Issues Test

There is no evidence that P score is discriminately increased by political conservatives. Instructions to respond to the DIT from the perspective of a thoughtful liberal results in an increase in P score, along with increases in scores for Stage 3, A and M type items. In different words, the instruction causes a decrease in Stage 4 score, and, insofar as scores on other items are a function of Stage 4 scores, those other items are increased. Liberals responding as conservatives significantly depress their P scores and increase their scores for Stage 4. The conclusion can be drawn that either conservatives posing as liberals had failed to comprehend principled type issues and failed to distinguish them from Stage 3, A and M type items, or conservatives tended to see liberals as self serving, principled, anarchic, and nonsensical. Liberals, on the other hand, tended to see conservatives as relying on conventional reasoning in the resolution of social conflicts.

Cognitive developmental theory predicts the pattern of responses this study exhibits. Those who think at a more principled level comprehend, and reject as immature, the patterns of reasoning characteristic of lower reasoning stages. Those who think at a lesser principled level fail to comprehend the reasoning characteristic of higher levels.

Nevertheless, for a single variable (change in Stage 4 score) to predict with 96.1% accuracy one's self reported political orientation, it is very difficult to argue that the Defining Issues Test is not measuring some dimension of political ideology. If so, this could contribute to the observed decline in P score in trade for Stage 4 reasoning evident from the manager to the partner/shareholder positions.

In passing, it would seem that where a single variable discriminant model is 96.1% accurate in predicting *anything*, considerable additional research as to the meaning of the variable is compelled.

Gender Differences

The gender difference in P scores is very interesting in itself. Two plausible explanations follow: (1) a more highly developed moral perspective is a likely consequence of gender based discrimination, (2) compared to men, higher caliber members of the population of women elect public accountancy.

Gender Discrimination Hypothesis: subsequent to a series of Supreme Court Decisions that seriously eroded the scope and effectiveness of the provisions of the Civil Rights Act

of 1964,³ and in order to provide protection and remedies with respect to discrimination in employment, the Civil Rights Act of 1991 (Glass Ceiling Act) was enacted into law. With the act, the Glass Ceiling Commission was established and was charged, for a period of four years, to study the phenomenon of under-representation of women and minorities in high ranking positions in business and, subsequently, to report its findings. The Commission's final report (1995) concluded that, as suggested by the "glass ceiling" metaphor, there is an invisible but pervasive and enduring barrier to promotion to high ranking positions that is faced by women and minorities.

Testifying before the Glass Ceiling Commission in 1994, Marguerite Griffin, member of the American Institute of Certified Public Accountants' Women and Family Issues Executive Committee, noted that upward mobility of women continues to be one of the most important issues facing the accounting profession (Griffin, 1994). Numbers of women attaining management level positions in public practice or in industry are disproportionately low, and markedly so, compared to the numbers of women entering the profession and advancing through lower ranks. While the AICPA has taken a proactive stance with respect to prescribing and implementing effective remedies, many contributing factors are deeply rooted. Inaccurate perceptions of the aspirations of women and cultural biases toward working women contribute materially to discriminatory promotional policies

³ See, for example, *Price Waterhouse v Hopkins*, 109 S. Ct. 1775 (1989). Here, the Supreme Court, reversing the decision of a lower court, found that while plaintiff Ann Hopkins had proved that gender played a motivating part in an employment decision by Price Waterhouse, the same decision would have been made notwithstanding her gender. Accordingly, Price Waterhouse was not liable under the provisions of the Civil Rights act of 1964. This case was one of ten specifically considered by the House as evidence compelling enactment of the 1991 Act.

that make admission to partnership or to ranking positions in industry more difficult for women than for men (AICPA, 1988). Discriminatory promotional practices result in personal loss to individuals, loss of stature to the profession, and economic loss to society due to the failure to fully utilize human resources.

Stage transition is a mechanism of moral development necessitated by psychological disequilibrium brought about by conflicts and contradictions of an existing mode of reasoning. Reorganization of the structure of one's reasoning, the development of reasoning characteristic of a more advanced Kohlbergian stage, is necessary to accommodate the conflicts and contradictions. For example, when various systems of conventions prescribe mutually exclusive actions, one cannot logically look to those conventions to resolve the conflicts that exist between them. One is forced to become a post conventional moral philosopher, to stand outside the systems, in order to judge the conflicting and contradictory conventional prescriptions.

When persons are not equally vested in social systems, systems defined and maintained by social convention, they are more likely to challenge those systems on moral grounds. They are more likely to reject the collective values of systems of which they are an unequal part and to reconceptualize the role of individuals in those systems. They are pushed by their circumstance into the perspective of Kohlberg's post-conventional moral philosophers in challenging the conventional status quo, and their reasoning matures accordingly. Thus, females in the accounting profession should exhibit reasoning structure that is more developed than that of their male counterparts as a consequence of being differentially confronted with the necessity for developmental stage transition.

Gender differences exhibited in this study, are not exhibited by the population in general. Studies having direct or incidental bearing on the role of gender in cognitive moral development show little or no gender effect (Rest, 1979, pp. 120-124; 1986, pp. 111-118); and where differences have been measured, they tend to show greater development of reasoning structure on the part of males (Kohlberg 1969; Gilligan et. al. 1971; Turiel, 1973; Holstein, 1976). One philosophical camp (Gilligan, 1977, 1982, 1983; Hahn, 1983) would attribute any gender effects to fundamentally different but equally viable moral orientations, an ethic of caring or a practical ethic of human interaction being more characteristic of female development, and an ethic of rational cognition of justice principles being more characteristic of male development. Representing another philosophical camp, and in response to the Gilligan et al.'s camp, Rest speculates that if there are gender differences in moral judgment as measured with the MJI or DIT, then the most likely explanation is not that there is a natural gender difference. Rather, it is more likely that: "... men in our society at the present time may be more sophisticated in moral thinking than women because the *biases in society* foster the difference" (1979, p. 122).

Evidently, there is disagreement among psychological theorists over the underlying nature and cause of any demonstrably greater structural sophistication of male moral reasoning as compared to that of females. Thus, evidence of greater structural sophistication on the part of professional females, as compared to professional males, evidence such as that presented herein, is even more striking by contrast. Rest's explanation of the underlying cause of gender differences clearly is viable and works in either direction. Greater sophistication of moral reasoning by professional females, as

compared to professional males, may be a consequence of biases in society that foster the difference.

Discrimination in promotional practices fosters the kind of normative challenge to the status quo that encourages stage transition in those personally affected. As found herein, where there is discrimination, and, particularly, where that discrimination is unjustified, one would expect to find a structurally more developed capacity for moral judgment on the part of those discriminated against. Those whose interests are highly coincident with the status quo are less likely to adopt a normative perspective with respect to that status quo. With respect to gender-based discrimination, it would seem that those who are the object of the discrimination are, as a consequence of the discrimination, compelled to develop the attitudinal and conceptual means necessary to understand the problem and respond effectively.

It is interesting to speculate that those who are likely to exhibit the most highly developed capacities for cognitive moral judgment are those who develop, as a consequence of life experiences, some objection to existing convention. Those who are most likely to effect change, where change is needed, are those who feel most directly the need for change. Certainly, as an adaptive social phenomenon, those same people are the ones who are most likely to develop a capacity for reasoning on a normative plane. Research on this "adaptive phenomenon" hypothesis may provide increased understanding of the low P score evident in accountancy.

Higher on the Normal Curve: The principal problem with the argument that gender based discrimination in the workplace is responsible for the difference in P scores between males and females is that the difference is apparent at all professional levels, including staff. Whatever is happening appears to be happening before females get to the profession. The university students in Shaub's study (Shaub, 1994), as cited before, exhibited the same gender difference.

There is a well-researched correlation between performance on standardized achievement and IQ tests and performance on the DIT (Rest, 1986, 146-153). Quite possibly, the elevated P score for females reflects a generally higher level of intellectual capability. The phenomenon might be a reflection of a sharper female, a duller male, or both. In either case, this nature of interpretation of the results has marked implications for the profession's recruiting efforts.

Regional Differences

Rest (1979) has observed, based on a metaanalysis of studies that employed the Defining Issues Test, that people in the South exhibit lower P scores than do people elsewhere. Results of the present study are consistent with that observation. Accountants in the South scored lower than did accountants in the Northeast and the Midwest. Both educational and research implications can be drawn from this finding.

First, with respect to the educational implications, Rest attributes the difference, in part, to a conservative intellectual milieu in the South, where people are not "encouraged to examine their views" as "thoroughly and systematically" as are people in other regions

(Rest, 1979, p.115 - 116). If Rest's interpretation is correct, then the normative implications for educational institutions in the South is clear. Perhaps, seminars in accounting theory and ethics could be fit into existing programs. Or, perhaps, the primacy of convention in the curriculum could be addressed at a more fundamental level: more theory, more analysis, fewer rules. Of course, however, such prescriptions are based on the assumption that the Defining Issues Test is reflecting a bona fide comparative deficiency in moral reasoning, and that assumption may need to be challenged.

Second, with respect to research implications, studies that utilize local samples as surrogates for national populations should take regional differences of subjects into consideration in generalizing results of those studies to national populations. A number of studies have been undertaken for which, given the findings of the present study, the results may need to be reinterpreted. With respect to Ponemon's original study on ethical selectivity, regional differences are relevant because a disproportionately large part of the sample in that study resides in the Northeast. The finding that there are regional differences in P scores, for various regions of the country, is consistent with the assertion that the accounting profession is not culturally uniform in the United States.

Regional differences are relevant to the interpretation of a number of other studies, as well. Shaub (1994) compared mean DIT "P" scores for auditors from southwestern offices of a Big Six firm with 91 academic seniors studying accounting in a "midwestern" school. Mean P scores for the two groups are, respectively, 41.29 and 41.32 leading to the conclusion that there is no evident increase in DIT scores after individuals enter the profession. Elsewhere in the study, the possibility of regional differences is noted and

dismissed on the grounds that both regions are comparably "conservative." Based on the present study, both regions are not comparably conservative. There does appear to be a difference in the two regions of precisely the kind that may obscure an inequality of DIT P scores between students and practicing professionals. Accordingly, in what is otherwise a scientifically sound and informative study, the conclusion (stated in the form of a "negative assurance") that the two groups are equal is unwarranted.

For a sample drawn from a large "southeastern" university, St. Pierre, Nelson, and Gabbin (1990) found that accounting students have lower DIT P scores than their non-business counterparts. For a sample drawn from a "midwestern" university, Holt and Jeffrey (1991) found that accounting students had higher DIT P scores than their non-business counterparts. Given inconsistencies in results for samples drawn from schools located in different regions, and given the potential for regional differences in "intellectual milieu" discerned in the present study, perhaps a greater degree of caution should be exercised when generalizing from regional samples to national populations, or when characterizing the universality of processes in place in any one area, or any one firm.

Limitations

The principal limitation of the research pertains to the use of questionnaires as the basis for gathering data. While the procedures employed to assess the potential for non-response bias suggest that the data set is valid in terms of its representativeness of the population, there are problems unique with respect to studies on moral judgment. It is reasonable to assume that the decision to give one's time to complete a questionnaire, a

contribution to science and to society's collective knowledge, is itself a moral decision. Consequently, responders are those who exhibit a particular moral trait -- one that is consistent with choosing to help someone with a scientific study. If that trait is relevant to hypotheses being tested, results could be invalid. This study is qualified accordingly.

Suggestions for Future Research

Is there a single moral atmosphere that is definitive of the profession? With respect to the moral atmosphere in which ethical decisions are made, Kohlberg et al. (1983) write:

. . . moral action usually takes place in a social or group context and that context usually has a profound influence on the moral decision-making of individuals. Individual moral decisions in real life are almost always made in the context of group norms or *group decision making processes*. Moreover, individual moral action is often a function of these norms or processes. For example, in the massacre at My Lai, individual American soldiers murdered noncombatant women and children. They did so, not because their moral judgment that such action was morally right was immature nor because, as individuals, they were 'sick' in some sense, but because they participated in what was essentially a group action taken on the basis of group norms. The moral choice made by each individual soldier who pulled the trigger was embedded in the larger institutional context of the army and its decision-making procedures. The soldier's decisions were dependent in large part on a collectively shared definition of the situation and of what should be done about it. In short, the My Lai massacre was more a function of the group 'moral atmosphere' that prevailed in that place at the time than of the stage of moral development of the individuals present. (Kohlberg et al., 1983, p. 53-54: Emphasis added)]

What is the nature of the "group moral atmosphere" in which professional accountancy is practiced? What is the larger institutional context? Are there identifiable features that systematically contribute to or detract from sound ethical decision making?

What is the impact on our behavior of a litigious environment, securities laws and the regulatory atmosphere? Are there differences in the moral personality between multinational firms and other types of firms?

In the accounting profession, the unwritten rule is that the value of financial information is compromised when individual practitioners rely on their own good judgment due to the unpredictability of what constitutes their own good judgment. Lack of comparability, lack of consistency of financial information compromises the worth of financial information. One central tenet of financial reporting is that the application of convention has value. Another tenet is that the provision of information that maintains the efficiency of capital markets is worthy of pursuit as a profession. An interesting research issue in itself is how to disentangle the respect and application of convention required in professional practice and the principled reasoning required of moral judgment.

Concern over behavior of professional accountants compels an approach from a perspective much broader than that offered by a study of reasoning structure. Normative content of reasoning and the collectively shared beliefs that make up the moral atmosphere in which professional accountants function, are areas that apparently hold much promise as to our understanding of what makes accountants more or less ethical. Not properly abstracting the problem results in oversimplification of the problem and understratification of the population being analyzed.

Over-reliance on the Cognitive Developmental Paradigm may undermine effective research into problems faced by the accounting profession. For example, any endeavor to understand what makes accountants more or less ethical ought not to focus narrowly on

stage homogeneous "basic conceptual structure." The materiality of within stage cognitive heterogeneity to research on the relationship between moral stage and behavior can be demonstrated simply. Allowing, as a hypothetical, that the population of Stage 4 thinkers consists only of people who defer morally to codified biblical writings and the authority of the church. And allowing, as a hypothetical, that half are Catholic and the others are the most fundamental of Baptists. If moral behavior were defined as avoidance of drink, dancing, and cigarettes, and if it is exhibited experimentally that Stage 4 thinkers as a whole more commonly engage in these activities than do Stage 5 thinkers, it could not be concluded that Baptists are more likely than Stage 5 thinkers to drink, dance and smoke. Failure to appropriately stratify the Stage 4 population leads to attribution to Baptists characteristics that might properly be attributable only to Catholics.

There is a developing literature on the significance of moral sensitivity and intensity in determining behavior. Rest (1986), asserts, quite reasonably, that people must first recognize the presence of a moral problem before they can willfully direct their minds toward the problem. Jones (1991), argues that conduct is issue contingent. Certain issues compel a greater intensity of response depending on the meaning of the issues to the individual involved. Wright et al. (1971, 1996) argue that the ability to recognize the presence of a moral problem depends on an individual's moral sensitivity and the intensity of the issue. Wright's position is that the reason a person perceives a situation to be one that presents a moral issue (the cognitive judgment focus) is much less important than the sensitivity that gives rise to the perception that a situation is one that presents a moral issue (the moral sensitivity focus). Moreover, Wright argues that moral intensity can be a

principle contributing factor to the content of one's belief system. People are most likely to become sensitized to and respond to matters that "spark off their fiercest indignation" (1971, p. 195).

Thus, moral sensitivity and moral intensity are possible areas of research in accounting. Reidenbach, E., and D. Robin (1990) have provided further insight into the predictive ability of normative content, moral sensitivity, and moral intensity. Three dimensions of ethical reasoning defined by high factor loadings on associated sets of variables have been identified. The developers refer to these items as the "Multidimensional Ethics Scale" (MDS). The dimensions appear in Table 6.1.

TABLE 6.1

DIMENSIONS OF THE MULTIDIMENSIONAL ETHICS SCALE

Dimension one: Broad based moral equity dimension

Fair/ Unfair

Just/ Unjust

Acceptable/ Unacceptable to my family

Morally/ Not morally right

Dimension two: Relativistic dimension

Traditionally acceptable/ Unacceptable

Culturally acceptable/ Unacceptable

Dimension three: Contractualism dimension

Violates/ Does not violate an unspoken promise

Violates/ Does not violate an unwritten contract

Each pair of contrary terms mark the ends of a seven-point Likert scale. People are asked to read a hypothetical scenario involving, presumably, a moral issue and to

characterize the issue in these terms. People also are asked to express what they might do were they in fact confronted with the issue, and to indicate the likelihood of their doing it on the same seven-point scale.

Flory et al. (1992) located, along these dimensions, the responses of managerial accountants to various hypothetical dilemmas. The MDS yielded adjusted R^2 s of .45 to .76 in predicting behavioral intention. Many of the scale dimensions are arguably semantic alternatives to a simple expression of moral judgment or behavioral intention. It ought not to be surprising, then, when one expression of behavioral intention is highly correlated with what is essentially a synonym. However, there is more to the MDS than semantics. First, there is considerable commonality, from person to person, as to the identity of the items that are relevant to a person's decision. This is precisely what drives the factor analysis used to identify the items in the first place. Second, high R^2 s indicate that there is a strong correlation between how intensely people see a matter as, for example, "just or unjust," and how intensely they report "I would do it" or "I would not." Such expressions of degree are expressions of intensity, moral intensity. Consequently, the MDS may be an effective means for the expression of moral intensity and may be an effective means for research in this area.

Lastly, a study tracing the present study is suggested, one sponsored, conducted, and interpreted by a major firm. Considering the significance of the policy decisions in the balance, and, given results that conflict with prior research, such a study would appear to be warranted.

APPENDIX A

SURVEY LETTER

LOUISIANA TECH UNIVERSITY

COLLEGE OF ADMINISTRATION AND BUSINESS
• SCHOOL OF PROFESSIONAL ACCOUNTANCY •

DATE

MFIELD{mrms}. FIELD{name1}
FIELD{address1}
FIELD{address2}
FIELD{address3} FIELD{zip1}FIELD{dash}FIELD{zip2}

Dear MFIELD{mrms}. FIELD{name2}:

Your name and address were provided by the AICPA. We are researching a set of hypotheses pertaining to ethical judgment that should be of very considerable interest to the accounting profession. Please help by providing the data requested on the enclosed questionnaire. We truly believe you would find the basis for the research interesting and compelling; but advance explanation could bias responses. A summary of results, however, will be provided if you check the box below and return this letter with the answer sheet (or in a separate envelope to preserve anonymity).

Thoughtful and careful response to the items on the questionnaire should take a total of approximately 30 minutes. As a disclaimer, parts of the questionnaire consist of widely used standardized tests designed to be intelligible to a range of people. Accordingly, in places the wording is somewhat simple. Of course, responses are anonymous (the number 2601 printed on the return envelope is our account at the university post office).

We genuinely appreciate your participation in what we believe is very promising research.

Very truly yours,

Stephen Bruce Scofield
Phone: (318) 257-3698
Fax: (318) 257-2142

Thomas J. Phillips, Jr.
Phone: (318) 257-4378
Fax: (318) 257-4253

☐ I would like a summary of the results when the study is complete.

P.O. BOX 10318 • RUSTON, LA 71272-0001 • TELEPHONE (318) 257-2822 • FAX (318) 257-4253
AN EQUAL OPPORTUNITY UNIVERSITY

LOUISIANA TECH UNIVERSITY

COLLEGE OF ADMINISTRATION AND BUSINESS
• SCHOOL OF PROFESSIONAL ACCOUNTANCY •

DATE

MFIELD(mrms). FIELD(name1)
FIELD(address1)
FIELD(address2)
FIELD(address3) FIELD(zip1)FIELD(dash)FIELD(zip2)

Dear MFIELD(mrms). FIELD(name2):

In (preceding month) we mailed out a questionnaire pertaining to political orientation, moral judgment and attribution. Preliminary results of this multi-faceted study are extraordinarily informative and are exculpatory with respect to individuals and organizations in both the accounting and legal professions. Given the significance of the preliminary findings, we've undertaken this follow-up to encourage people to participate so that responses are as scientifically representative of the populations involved as is practical in the circumstances.

If you have not done so already, we ask you please to give this exceptionally promising research effort the thirty minutes of your time necessary to complete the questionnaire. We cannot stress enough the value of your responses to the accuracy of conclusions reached about a profession of which you are a definitive part. If the questionnaire has been discarded or misplaced, let us know by returning the enclosed card and we will send a replacement promptly. Alternatively, given the likely pressures on your time this part of the year, you might wish to check one of the boxes relating to a later date and we will mail a replacement to arrive on the date checked.

To those who have responded; we deeply appreciate your help (those are not just words). This type of research is a collective effort and we hope to warrant your participation with insights that are both interesting and practically significant. We very much look forward to providing a summary to people who requested one when the study is complete.

Very truly yours,

Stephen Bruce Scofield
Phone: (318) 257-3698
Fax: (318) 257-2142

Thomas J. Phillips, Jr.
Phone: (318) 257-4378
Fax: (318) 257-4253

P.O. BOX 10318 • RUSTON, LA 71272-0001 • TELEPHONE (318) 257-2822 • FAX (318) 257-4253
AN EQUAL OPPORTUNITY UNIVERSITY

LOUISIANA TECH UNIVERSITY

COLLEGE OF ADMINISTRATION AND BUSINESS
• SCHOOL OF PROFESSIONAL ACCOUNTANCY •

DATE

Mr. FIELD(mrms). FIELD(name1)
FIELD(address1)
FIELD(address2)
FIELD(address3) FIELD(zip1) FIELD(dash)FIELD(zip2)

Dear Mr. FIELD(mrms). FIELD(name2):

Enclosed is a copy of the questionnaire as called for on the reply card. Thank you very much for your interest. As stated in our letter of (date), this research is a collective effort made possible by you and we hope to warrant your participation with insights that are both interesting and practically significant.

Please note that most of the questionnaire consists of widely used tests developed by other researchers (identified on the instruction and answer sheets). Any simplicity, awkwardness or ambiguity you may find in these tests is present by design.

We will be very pleased to send a summary of the results of the study if you wish. To request a summary, please check the box below and return this letter with the answer sheet (or in a separate envelope to preserve anonymity). Again, we genuinely appreciate your participation in this very promising research.

Very truly yours,

Stephen Bruce Scofield
Phone: (318) 257-3698
Fax: (318) 257-2142

Thomas J. Phillips, Jr.
Phone: (318) 257-4378
Fax: (318) 257-4253

☐ I would like a summary of the results when the study is complete.

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LOUISIANA TECH UNIVERSITY

COLLEGE OF ADMINISTRATION AND BUSINESS
• SCHOOL OF PROFESSIONAL ACCOUNTANCY •

November 28, 1994

FIELD(name1)
FIELD(address1)
FIELD(address2)
FIELD(address3)
FIELD(address4)

Dear FIELD(name2):

Your name and address were chosen from the Martindale-Hubbell Law Directory. We are researching a set of hypotheses that involve, in part, certain contrasts in ethical judgment that should be of considerable interest to both legal and accounting professions. Please help by providing the data requested on the enclosed questionnaire. We truly believe you would find the basis for the research interesting and compelling; but advance explanation could bias responses. A summary of results, however, will be provided if you check the box below and return this letter with the answer sheet (or in a separate envelope to preserve anonymity).

Thoughtful and careful response to the items on the questionnaire should take a total of approximately 30 minutes. As a disclaimer, parts of the questionnaire consist of widely used standardized tests designed to be intelligible to a range of people. Accordingly, in places the wording is somewhat simple. Of course, responses are anonymous (the number 2601 printed on the return envelope is our account at the university post office).

We genuinely appreciate your participation in what we believe is very promising research.

Very truly yours,

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AN EQUAL OPPORTUNITY UNIVERSITY

APPENDIX B

QUESTIONNAIRE

TABLE B.1
COMPOSITION OF QUESTIONNAIRES

		Part 1	Part 2	Part 3	Part 4		
		Demographics	Political Scale	DIT (three dilemma)	DIT (three dilemma) non-standard instructions	Multi- dimensional Scale	DIT (balance of six dilemma test)
ACC ₁	Instructions	page 147	page 147	pages 147-149	page 150		
	Answer Sheet	154	154	156-157	157-158		
ACC ₂	Instructions	147	147	147-149	151		
	Answer Sheet	154	154	156-157	157-158		
ACC ₃	Instructions	147	147	147-149		page 152	
	Answer Sheet	154	154	156-157		159	
ACC _p	Instructions	147	147	147-149	150		
	Answer Sheet	154	154	156-157	157-158		
ACC _s	Instructions	147	147	147-149			page 153
	Answer Sheet	154	154	156-157			160-161
LAW ₀	Instructions	147	147	147-149	150		
	Answer Sheet	155	154	156-157	157-158		

INSTRUCTIONS

PART 1: GENERAL AND DEMOGRAPHIC

Please provide the information requested in the section of the answer sheet titled "GENERAL AND DEMOGRAPHIC."

PART 2: POLITICAL SCALE

David M. Collins and
Peter F. Hayes
(Wilson / Patterson)

Opinions about social and political issues: The purpose of the second part of the questionnaire is to gather information about opinions professionals have on certain timely social and political issues. On the section of the answer sheet that corresponds to this part of the questionnaire, please indicate the extent of your agreement or disagreement with the sixteen items listed.

PART 3: DEFINING ISSUES TEST

University of Minnesota
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(Copyrighted material not published at the request of the holder of the copyright)

(Copyrighted material not published at the request of the holder of the copyright)

PART 4: DEFINING ISSUES TEST

University of Minnesota
Copyright, James Rest
All Rights Reserved, 1979

Defining Issues Test with nonstandard instructions: The following instructions depart from the standard instructions to the Defining Issues Test and are not part of the Test which is copyrighted by James Rest of the University of Minnesota.

Please refer to the question under "PART 1: GENERAL AND DEMOGRAPHIC" that pertains to political orientation. If you indicated that you are a political conservative or "other," please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of a liberal**. In other words, weight the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think a liberal would assign; and rank as the four most important issues the issues you think a liberal would choose. Items that a liberal would consider unimportant and items that are simply gibberish (such as the statement "Whether the front connibilies were differential."); both should be marked "No Importance."

If you indicated that you are a political liberal, please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of a conservative**. In other words, rate the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think a conservative would assign; and rank as the four most important issues the issues you think a conservative would choose. To repeat the note above, items unimportant to a conservative and items that are simply gibberish both should be marked "No Importance."

Thank you genuinely for giving us the information we need for our research.

PART 4: DEFINING ISSUES TEST

University of Minnesota
Copyright, James Rest
All Rights Reserved, 1979

Defining Issues Test with nonstandard instructions: The following instructions depart from the standard instructions to the Defining Issues Test and are not part of the Test which is copyrighted by James Rest of the University of Minnesota.

Please refer to the question under "PART 1: GENERAL AND DEMOGRAPHIC" which asks you to identify the person that is the greatest source of pressure to act against your own moral judgment. Please reread the three stories supplied with the Defining Issues Test and respond to them from the **perspective of that person**. In other words, weight the issues as being from "Great Importance" to "No Importance" in accordance with the weight you think the person would assign; and rank as the four most important issues the issues you think the person would choose. Items which the person would consider unimportant and items that are simply gibberish (such as the statement "Whether the front connibilies were differential."); both should be marked "No Importance."

Thank you genuinely for giving us the information we need for our research.

PART 4: ETHIC FACTORS SCALE

U of Southern Mississippi
R. Eric Reidenbach and
Donald P. Robin

Factors relevant to ethical judgment: The purpose of the fourth part of the questionnaire is to gather information pertaining to the weight assigned by accountants to various factors relating to ethical judgments. You will be asked to reread each of the stories presented in the Defining Issues Test and to assume that a particular decision has been made. Then you will be asked to weight the items that appear on the answer sheet for part 4 in terms of their relevance to *your* assessment of whether the choice made was the right one or the wrong one. In order to illustrate how to mark the answer sheet, please consider the following:

FRANK AND THE CAR:

Please reread the story *Frank and the Car*. Frank buys the larger (used) car. In terms of the factors below, evaluate Frank's action:

Fair	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unfair
Just	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unjust
Morally right	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not morally right
Acceptable to my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unacceptable to my family
Ethical	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unethical
Culturally acceptable	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Culturally unacceptable
Traditionally acceptable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Traditionally unacceptable
Violates an unwritten contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unwritten contract
Violates an unspoken promise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unspoken promise
I would make the same decision	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I would not make the same decision

Note that in this case the individual responding has indicated that Frank's decision to buy the used car was ethical (the fifth item down) for the reasons indicated to the degrees indicated. In addition, the individual responding has indicated that neither tradition nor the presence of an unspoken promise are pertinent to his or her assessment of Frank's decision.

Please proceed to the answer sheet for part 4 and follow the instructions there.

Thank you genuinely for giving us the information we need for our research.

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ANSWER SHEET

PART 1: GENERAL AND DEMOGRAPHIC

Which person is the single most significant source of pressure you experience to act against your own moral judgment?

- ☐ 1. Subordinate
☐ 2. Peer
☐ 3. Immediate superior
☐ 4. Partner (shareholder)
☐ 5. Client
☐ 6. Member of family
☐ 7. Member of society
☐ 8. AICPA Official

Please choose the item that most accurately describes your political orientation.

- ☐ 1. Conservative
☐ 2. Liberal
☐ 3. Other

Which one item most accurately describes your area of practice?

- ☐ 1. Audit
☐ 2. Tax
☐ 3. MAS
☐ 4. Other

Please indicate the number of professionals (all locations) in your firm.

- ☐ 1. 1 to 9
☐ 2. 10 to 24
☐ 3. 25 to 99
☐ 4. 100 to 249
☐ 5. 250 or more

Please fill the circle next to the one item that most accurately describes your professional position.

- ☐ 1. Staff
☐ 2. Senior
☐ 3. Supervisor
☐ 4. Manager
☐ 5. Partner (shareholder)

____ Years in profession

____ Age

____ Sex

PART 2: POLITICAL SCALE

David M. Collins and
 Peter F. Hayes
 (Wilson / Patterson)

Strongly Agree
 Agree
 Undecided
 Disagree
 Strongly Disagree

☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐

1. Flag burning
2. Chastity
3. Legalized abortion
4. Premarital virginity
5. Casual sex
6. Church authority
7. Punk rockers
8. Patriotism

Strongly Agree
 Agree
 Undecided
 Disagree
 Strongly Disagree

☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐

9. Heavy metal music
10. ROTC
11. Strip shows
12. Evolutionary theory
13. Female clergy
14. Fundamental religion
15. Bible truth
16. Divorce

ANSWER SHEET

PART 1: GENERAL AND DEMOGRAPHIC

Which person is the single most significant source of pressure you experience to act against your own moral judgment?

- ☐ 1. Subordinate
- ☐ 2. Peer
- ☐ 3. Immediate superior
- ☐ 4. Partner (shareholder)
- ☐ 5. Client
- ☐ 6. Member of family
- ☐ 7. Member of society
- ☐ 8. Bar Assn. Official

Please choose the item that most accurately describes your political orientation.

- ☐ 1. Conservative
- ☐ 2. Liberal
- ☐ 3. Other

Which one item most accurately describes your area of practice?

- ☐ 1. Civil-plaintiff
- ☐ 2. Civil-defendant
- ☐ 3. Criminal-prosecution
- ☐ 4. Criminal-defense
- ☐ 5. Business
- ☐ 6. Transactional
- ☐ 7. Fiduciary / tax
- ☐ 8. International
- ☐ 9. Other

Please indicate the number of professionals (all locations) in your firm.

- ☐ 1. 1 to 9
- ☐ 2. 10 to 24
- ☐ 3. 25 to 99
- ☐ 4. 100 to 249
- ☐ 5. 250 or more

Please fill the circle next to the one item that most accurately describes your professional position.

- ☐ 1. Staff
- ☐ 2. Council
- ☐ 3. Associate
- ☐ 4. Partner (shareholder)

____ Years in profession

____ Age

____ Sex

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PART 4: ETHIC FACTORS SCALE

U. of Southern Mississippi
R. Eric Reidenbach and
Donald P. Robin

HEINZ AND THE DRUG:

Please reread the story *Heinz and the Drug*. Heinz steals the drug.
In terms of the factors below, evaluate Heinz's decision.

Fair	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unfair
Just	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unjust
Morally right	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not morally right
Acceptable to my family	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unacceptable to my family
Ethical	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unethical
Culturally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Culturally unacceptable
Traditionally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Traditionally unacceptable
Violates an unwritten contract	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unwritten contract
Violates an unspoken promise	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unspoken promise
I would make the same decision	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I would not make the same decision

ESCAPED PRISONER:

Please reread the story *Escaped Prisoner*. Mrs. Jones does not report Mr. Thompson. Evaluate Mrs. Jones' decision.

Fair	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unfair
Just	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unjust
Morally right	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not morally right
Acceptable to my family	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unacceptable to my family
Ethical	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unethical
Culturally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Culturally unacceptable
Traditionally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Traditionally unacceptable
Violates an unwritten contract	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unwritten contract
Violates an unspoken promise	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unspoken promise
I would make the same decision	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I would not make the same decision

NEWSPAPER:

Please reread the story *Newspaper*. The principal stops the newspaper.
In terms of the factors below, characterize the principal's decision.

Fair	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unfair
Just	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unjust
Morally right	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not morally right
Acceptable to my family	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unacceptable to my family
Ethical	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unethical
Culturally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Culturally unacceptable
Traditionally acceptable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Traditionally unacceptable
Violates an unwritten contract	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unwritten contract
Violates an unspoken promise	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does not violate an unspoken promise
I would make the same decision	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I would not make the same decision

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